

MANAGING THE MESSAGE: THE EFFECTS OF FIRM ACTIONS AND INDUSTRY SPILLOVERS ON MEDIA COVERAGE FOLLOWING WRONGDOING

ANASTASIYA ZAVYALOVA
Rice University

MICHAEL D. PFARRER
University of Georgia

RHONDA K. REGER
DEBRA L. SHAPIRO
University of Maryland, College Park

We contribute to research on the management of social perceptions by considering the relative effectiveness of a firm's technical and ceremonial actions in managing media coverage after its own or its competitors' wrongdoing. We examine these relationships in the context of product recalls by U.S. toy companies over the ten-year period 1998–2007. As hypothesized, firms with higher levels of wrongdoing experience less positive media coverage; however, this decline is mitigated during periods of higher industry wrongdoing. Additionally, we find support for a negative spillover effect: the tenor of media coverage about a focal firm is less positive if others in its industry recall products. Further, technical actions help firms attenuate the negative effect of their own wrongdoing on the tenor of media coverage, whereas ceremonial actions amplify this effect. In contrast, ceremonial actions are more effective in attenuating the negative effect of industry wrongdoing on the tenor of media coverage about a focal firm.

Information intermediaries—third parties such as the media, financial analysts, regulators, and consumer organizations—disseminate information, frame issues, and assist stakeholders in making

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sense of firm actions. By influencing stakeholders' perceptions about a firm, these *infomediaries* (Deephouse & Heugens, 2009; Pfarrer, Pollock, & Rindova, 2010; Pollock & Rindova, 2003) play an active role in the formation of a firm's social approval (Fombrun, 1996; Fombrun & Shanley, 1990; Pollock & Rindova, 2003; Rao, 1994). In turn, the firm can leverage these favorable perceptions to develop intangible assets—such as reputation and legitimacy—achieve competitive advantage, and accrue performance benefits (e.g., Deephouse, 2000; Deephouse & Carter, 2005; Kennedy, 2008; Martins, 2005; Pollock & Rindova, 2003; Pollock, Rindova, & Maggitti, 2008; Rao, 1994; Zuckerman, 1999). Although recent organizational research has enriched scholars' understanding of the role of infomediaries in shaping stakeholder perceptions, we know less about how firms can influence the way infomediaries portray them, particularly after wrongdoing. Thus, increasing understanding about this topic is theoretically and practically important (cf. Desai, 2011; Lamertz & Baum, 1998; Pollock & Rindova, 2003; Rindova, Pollock, & Hayward, 2006; Westphal & Deephouse, 2011).

The purpose of this study is to answer two related questions: What are the effects of wrongdoing by a firm and an industry on the tenor of media coverage about the focal firm? How do the firm's actions influence these effects? In this article, we focus on one particularly influential infomediary, the media—both the printed press and blogs—because of stakeholders' reliance on these sources as disseminators of information about firms (Alvesson, 1990; Einwiller, Carroll, & Korn, 2010; Jin & Liu, 2010). We define *wrongdoing* as firm behaviors that place a firm's stakeholders at risk and violate stakeholders' expectations of societal norms and general standards of conduct (Coombs, 1995; Pfarrer, DeCelles, Smith, & Taylor, 2008). By examining the interdependencies among firms, we provide a more detailed picture of the dynamics occurring between the firm and the industry in which it operates, as well as the media's coverage of these dynamics.

We develop our arguments drawing from two streams of research on (1) the media's influence on social perceptions of firms and (2) crisis and impression management. The first research stream suggests that media shape public opinion (McCombs & Shaw, 1972) and influence stakeholders' impressions of a firm's behavior (Deephouse, 2000; Pollock et al., 2008; Pollock & Rindova, 2003) by choosing which issues to cover (McCombs, 1981) and how to frame them (Entman, 2007; Scheufele, 1999). Stakeholders use media-disseminated information to decide if a firm's behavior is consistent with their expectations about social and industry norms (Suchman, 1995) and to decide whether to transact with the firm. However, when a firm violates stakeholder expectations by engaging in wrongdoing, its level of social approval drops, and stakeholders may withdraw transactions (Jonsson, Greve, & Fujiwara-Greve, 2009), thus threatening the firm's reputation, legitimacy, and survival (Suchman, 1995).

The second research stream, on crisis and impression management, suggests that amid violations of stakeholder expectations, firms must learn to manage stakeholder perceptions of firm behavior (Benoit, 1995; Coombs, 2007; Dukerich & Carter, 2000; Elsbach, 2003). However, different responsive actions may either attenuate or amplify the negative effects of wrongdoing on stakeholder perceptions. Because the media can shape social perceptions about a firm, it is practically and theoretically important to understand which firm actions may better restore the positive tenor of media coverage and increase the firm's social approval following wrongdoing.

Thus, the first contribution of our study lies in the extension of current organizational research on

social perceptions with the first large-scale empirical study that examines how firms can actively influence media coverage, and ultimately, social approval. Specifically, we test the relative effectiveness of firms' *information subsidies*—prepackaged written pieces of information about firms' activities disseminated to the media (Rindova et al., 2006: 62)—on influencing the tenor of media coverage about the firms and how this influence may vary depending on the source of wrongdoing. We focus on the relative effectiveness of the announcement of two types of firm actions, technical and ceremonial. We define *technical actions* as ones that have the potential to address the causes of wrongdoing and thus attract the media and stakeholders' attention to the internal processes of a firm (cf. Godfrey, Merrill, & Hansen, 2009). In contrast, *ceremonial actions* are ones that have the potential to positively alter impressions about the firm and deflect media and stakeholders' attention away from the causes of wrongdoing (cf. Kirsch, Goldfarb, & Gera, 2009). Through the theoretical development and empirical testing of these constructs, we respond to calls for examining how firms influence the infomediaries covering them as well as the process of the loss and recovery of a firm's social approval, both of which have been identified as understudied areas in organizational research (e.g., Jonsson et al., 2009; Pollock et al., 2008; Westphal & Deephouse, 2011).

We also contribute to research on impression and crisis management that has examined how firm accounts generate responses among stakeholders (Elsbach, 1994; Elsbach & Kramer, 1996) but has not investigated the circumstances under which the effectiveness of the accounts may vary. Specifically, drawing on research from social psychology that investigates stakeholders' formation of judgments about firms (cf. Mishina, Block, & Mannor, 2012), we provide novel theoretical arguments that explore the sociocognitive processes that explain how technical and ceremonial actions affect the media coverage about a firm after its own or industry wrongdoing.

We tested our hypotheses in the context of product recalls by U.S. toy firms from 1998 to 2007. Our empirical results indicate that although firms that recall more toys are covered less positively in the media, this effect is mitigated when others in the industry also engage in recalls. Additionally, we find support for a negative spillover effect: the tenor of media coverage about a focal firm is less positive if others in the industry recall products. We also find that the effectiveness of technical and ceremonial actions in restoring the positive tenor of media coverage depends on the source of the recall.

In particular, announcements of technical actions are helpful in attenuating the negative effect of a focal firm's recalls on the tenor of media coverage, but announcements of ceremonial actions amplify this effect. Ceremonial actions, however, help reduce the negative effect of recalls by other firms in the industry on the tenor of media coverage about the focal firm.

The remainder of this article proceeds as follows: We first provide an overview of the process of infomediaries' influence on social perceptions. Next, we develop theoretical arguments that explain (1) the effect of firm and industry wrongdoing on the tenor of media coverage about a focal firm, (2) the moderating effect of industry wrongdoing on the relationship between focal firm wrongdoing and the tenor of media coverage, and (3) the relative effectiveness of technical and ceremonial actions in moderating the negative effect of firm and industry wrongdoing on the tenor of media coverage. We then empirically test our hypotheses and discuss the results. We conclude with a discussion of the study's contributions to organization theory and implications for future research.

THEORY AND HYPOTHESES

Infomediaries, Social Perceptions, and Information Subsidies

Infomediaries, such as the business press, financial analysts, consumer groups, regulatory agencies, and industry experts, influence and shape stakeholders' perceptions about firms and their actions (Deephouse, 2000; Desai, 2011; Kennedy, 2008; Pollock & Rindova, 2003; Zuckerman, 1999). By selecting which issues to cover and how to frame them, infomediaries set the agenda for stakeholder discourse about firm behavior and can influence collective social perceptions (McCombs, 1981; Pollock & Rindova, 2003; Rogers, Dearing, & Bregman, 1993). Whereas stakeholder impressions are formed in many ways, either through direct or indirect experiences (Bandura, 2001; Fiske & Taylor, 2008), infomediaries play a major role as third-party actors in firm-stakeholder relationships by providing opportunities for stakeholders to learn vicariously about firm actions. In this study, we focus on the media—both the printed press and blogs—because of stakeholders' reliance on them as primary sources of information about firms (Alvesson, 1990; Einwiller et al., 2010; Jin & Liu, 2010).

The ability of the media to influence the social approval of firm actions has important ramifications for firms. Stakeholders are more likely to transact with, and approve of, firms that meet and

exceed their expectations (Floyd, Ramirez, & Burgoon, 1999; Scott, 1995). As a result, firms that obtain stakeholder approval are more likely to build intangible assets, such as legitimacy and reputation, and they have greater chances of survival and economic success (Pfarrer et al., 2010). In the early stages of the U.S. auto industry, for instance, firms obtained legitimacy and built reputation through the media coverage of their contests (Rao, 1994). Similarly, commercial banks covered positively in the media had higher financial returns than banks that received less favorable coverage. The media "provided a forum of what constitutes a good firm," and positive coverage represents favorable public opinion about firms (Deephouse, 2000: 1097). Similarly, investors often form their impressions about new firms and evaluate them financially by relying on information provided by the media as well as by other types of infomediaries (Pollock et al., 2008; Zuckerman, 1999). Thus, a firm's ability to influence media coverage can be consequential for how it manages stakeholder impressions and their approval of firm actions, as well as for the development and maintenance of intangible assets.

Although organizational researchers have acknowledged that a firm's information subsidies can influence the media, which in turn can affect stakeholder perceptions (e.g., Rao, 1994; Rhee & Haunschild, 2006; Rindova et al., 2006; Westphal & Deephouse, 2011), what is less clear is *how* firms can influence the tenor of media coverage, especially following wrongdoing. In particular, when a firm or its peers are engaged in wrongdoing, what actions should the firm take to alter negative media coverage and consequently alter stakeholders' perceptions? Additionally, does the effectiveness of the announced firm actions depend on whether the firm itself was involved in wrongdoing or whether it was instead only "guilty by association"? Investigating the effectiveness of firm actions requires first gaining better understanding of both wrongdoing as a violation of stakeholders' expectations and *direct* effects of the magnitude of firm and industry wrongdoing on the tenor of media coverage of a firm.

Wrongdoing and Expectancy Violations

Research in social psychology suggests that individuals generally expect positive outcomes and are optimistic about their futures (Fiske & Taylor, 2008; Parducci, 1968; Pezzo, Pezzo, & Stone, 2006). According to expectancy violations theory, conforming behavior remains largely unnoticed, but violations attract attention because of their salience

and deviance from commonly held expectations (Floyd et al., 1999). Specifically, negative violations of expectations generate negative emotional responses and create cognitive dissonance by altering individuals' views of the way things should be (Burgoon, Denning, & Roberts, 2002; Festinger, 1957; Greifeneder, Bless, & Pham, 2011). Thus, when a firm or its peers engage in wrongdoing, the media and stakeholders actively seek new information about the firm (Floyd et al., 1999; Planalp & Fitness, 1999) and recalibrate their impressions of it (Taylor, 1991).

Product recall announcements are an example of negative violations of social expectations. Sales of defective products breach the implied social contract between a firm and its stakeholders, who maintain "a set of values, beliefs, and norms" according to which their exchange with the firm should take place (Morrison & Robinson, 1997: 246). Thus, product recalls are likely to be interpreted as wrongdoing because they violate social expectations about the firm's ability to act according to an implied promise of appropriate behavior. In the following section, we propose two baseline hypotheses that investigate two types of wrongdoing—those committed by a firm and those committed by its peers—and their effects on the tenor of media coverage about the firm.

Firm wrongdoing. Firms engaged in wrongdoing are likely to generate negative media coverage. In turn, they may lose stakeholder approval because such conduct violates stakeholder perceptions of acceptable firm behavior and potentially places stakeholders at risk (Pfarrer, et al., 2008; Pfarrer, Smith, Bartol, Khanin, & Zhang, 2008; Suchman, 1995). For example, financial wrongdoing leads to more negative perceptions by stakeholders about a firm's ability to create value over time (Kang, 2008). Layoffs and downsizing can violate stakeholders' expectations of the firm's credibility and commitment to them and may be interpreted by the affected stakeholders as wrongdoing (Love & Kraatz, 2009). Further, the amount of damage caused by corporate wrongdoing should be expected to affect the tenor of media coverage. Research in social psychology and management suggests that the greater the scale of a wrongdoing event, the more attention the media will pay to the event (Deephouse, 2000; Fiske & Taylor, 2008; Rindova et al., 2006), thus lowering the social approval of the involved firm. For example, severe industrial accidents (Zyglidopoulos, 2001) and severe auto recalls (Rhee & Haunschild, 2006) are associated with lower reputation because such incidents receive higher levels of media attention and scrutiny. Although past organizational research has proposed

theoretical arguments associating firm wrongdoing with greater media coverage, the relationship between wrongdoing and the tenor of coverage has not been studied empirically. Thus, we hypothesize:

Hypothesis 1. The greater the magnitude of a firm's wrongdoing, the less positive the tenor of media coverage about the firm.

Industry wrongdoing. Recent organizational research suggests that firms belonging to industries whose members engage in wrongdoing can suffer from negative spillovers (Barnett & Hoffman, 2008; Barnett & King, 2008; Kostova & Zaheer, 1999). Because stakeholders stratify objects, including firms, into categories (Porac & Thomas, 1990; Reger & Palmer, 1996), firms from the same industry as a wrongdoer could be perceived as being "guilty by association" (Lange, Lee, & Dai, 2011: 181). Salience of negative social stimuli is usually greater than salience of positive stimuli when social expectations are violated (Skowronski & Carlston, 1989); thus, negative events, such as product recalls, attract more attention than positive ones. The media and stakeholders are likely to focus on negative stimuli associated with a specific firm engaged in wrongdoing when forming judgments of other firms in the same industry. Specifically, the media and stakeholders may assume that if one firm in the industry is engaged in wrongdoing, other firms may be experiencing similar problems. Furthermore, stakeholders' memories about the name of the firm engaged in wrongdoing may be incorrect, creating "category confusion" (Fiske & Taylor, 2008: 268). Such generalizations may contribute to a mistaken attribution of guilt to an otherwise innocent firm in the same industry as a wrongdoer.

In organizational research, generalizing the misconduct of one firm to others has been described as "categorical delegitimization" (Greve, Palmer, & Pozner, 2010: 89; Jonsson et al., 2009) or "negative spillover" (Barnett & King, 2008: 1160). A few recent empirical studies show support for these effects but have not investigated the mechanisms through which negative spillovers occur. For example, Jonsson and colleagues (Jonsson et al., 2009) theorized that when stakeholders generalized the effects of organizational wrongdoing by one firm to other firms in the mutual fund industry, the generalization led stakeholders to withdraw transactions from firms similar to the violating firm. Barnett and King (2008) likewise found that the wrongdoing of one firm in the U.S. chemical industry spilled over to other firms, thus harming firms that were not directly at fault. Finally, in a study of the effects of financial mismanagement on the spillover of reputational penalties, Kang demonstrated that firms

unsuspected of wrongdoing but retaining a board member from an accused firm were also likely to be penalized by their stakeholders (2008).

This research suggests that one firm's wrongdoing can negatively impact other firms in the same industry, even if those other firms are innocent. However, the mechanism underlying the effect of negative spillovers on the tenor of media coverage has not been studied empirically. In the context of this study, some firms in the U.S. toy industry may have become guilty by association because of media reports that did not always name the companies with recalls, referring instead to the recalls as an industry-wide problem and using more general phrases such as "toy recalls" or "children's product recalls." When media coverage about an industry is negative, it can result in a negative evaluation of a specific firm, even if the firm itself is not "the target of the negative tone" (Carroll, 2009: 5). Such generalizations and uncertainty about a firm's involvement in wrongdoing may cause stakeholders to perceive the firm to be guilty of wrongdoing because it is associated with a guilty industry (Fiske & Taylor, 2008). We therefore hypothesize:

Hypothesis 2. The greater the magnitude of wrongdoing in a firm's industry, the less positive the tenor of media coverage about the firm.

In sum, our theoretical framework suggests that changes in the tenor of media coverage depend not only on a focal firm's violation of stakeholder expectations (Hypothesis 1), but also on the prevalence of wrongdoing by other firms in its industry (Hypothesis 2). If, as we argue above, the wrongdoing of some firms can spill over to tarnish other firms in an industry (e.g., Kostova & Zaheer, 1999; Yu, Sengul, & Lester, 2008), does a high prevalence of wrongdoing in the industry attenuate or amplify the negative effect of firm wrongdoing on the tenor of media coverage about the focal firm?

The Safety-in-Numbers Effect

Social psychology research on attention suggests that a particular object is more salient—or stands out more relative to others in the environment—if it is novel or unusual for its category (Jones & McGillis, 1976). Increased salience of a particular object, in turn, attracts a perceiver's attention and enhances perceptions of prominence. For instance, being the only unpleasant person in a room will garner disproportionate condemnation (Fiske & Taylor, 2008). We apply similar reasoning to the firm level of analysis. When a single firm from an industry engages in wrongdoing, this action is salient because it is novel and unusual in the indus-

try. In such a case, the firm is more likely to attract a disproportionate share of negative publicity and attention and suffer more negative media coverage. However, if several other firms also engage in similar negative actions, the act loses its novelty and salience, decreasing the amount of attention paid to any firm in particular (Ahmadjian & Robinson, 2001; Pfarrer, et al., 2008). Thus, during times of wrongdoing in an industry, a focal firm may experience a safety-in-numbers effect: the direct negative effect wrongdoing has on the tenor of media coverage will be weakened. This suggests that to accurately predict the tenor of media coverage associated with different levels of a firm's wrongdoing, one has to account for the level of wrongdoing in its entire industry. We therefore hypothesize:

Hypothesis 3. The magnitude of wrongdoing in a firm's industry attenuates the negative effect of a firm's wrongdoing on the tenor of media coverage about the firm.

Firm Actions following Wrongdoing

Research in crisis and impression management suggests that when a firm's name is tarnished by its own or competitors' wrongdoing, managers can attempt to influence media coverage of that firm by providing a public response (Desai, 2011; Elsbach & Kramer, 1996; Elsbach & Sutton, 1992; Pfarrer, et al., 2008; Westphal & Bednar, 2008; Westphal & Deephouse, 2011). Firms often issue verbal accounts about their activities through the media, thus simplifying stakeholders' search for information (Rindova et al., 2006) and influencing stakeholder perceptions about the appropriateness of firm actions. However, there is little empirical evidence about the effectiveness of different information subsidies in influencing the tenor of media coverage about firms.

We propose that the effectiveness of information subsidies in influencing media coverage about a firm after wrongdoing depends on the actions the firm announces. We categorize firm actions as either technical or ceremonial, depending on the actions' capacity to address the cause of wrongdoing, to focus on changes in internal processes or external evaluations about the firm, and to attract or deflect the media and stakeholders' attention to wrongdoing.¹ The *technical* category includes ac-

¹ These action categories are similar to other classifications found in the organizational literature, such as "technical" and "institutional" (e.g., Godfrey et al., 2009; Lamertz & Baum, 1998; Scott, 2003; Thompson, 1967), "core" and "peripheral" (e.g., Hannan & Freeman, 1984),

tions that are perceived as having the potential to address the cause of wrongdoing and thus attract media and stakeholder attention to it. Examples of technical actions in our sample include Mattel's monitoring of manufacturing facilities by involving an "independent monitoring council" (Newswire, 2002) and LeapFrog's public announcement after recalling the musical activity center Learn-Around Playground in 2006 that "consumers should immediately take the recalled activity center away from children and contact LeapFrog for a free repair kit" (Newswire, 2006). In contrast to the technical category, the *ceremonial* category includes a firm's actions taken in the days after recalls that are perceived as having the potential to alter stakeholder perceptions of the firm by emphasizing its positive, alternative character traits (Ashforth & Gibbs, 1990) and deflecting media and stakeholder attention away from the wrongdoing. In the context of our study, examples of ceremonial actions include Hasbro's announcement that "to . . . commemorate the heroes that served during the Pearl Harbor attack, [the firm is making] a donation to the USS Arizona Memorial Fund" (Business Wire, 2001). Another example of a ceremonial action is Mattel's organization of the children's contest "How Looney Can You Be?" (Business Wire, 2003) or FAO Schwarz's announcement that they "are inviting kids across the country to help make a difference by participating in the first-ever Play-A-Thon™ . . . by offering them a chance to raise money for a charity of their choice" (Business Wire, 2001). Using theory from social psychology, we hypothesize how and why the two types of actions may attenuate or amplify the negative effect that firm or industry wrongdoing has on the tenor of media coverage about firms.

Actions after firm wrongdoing. As we hypothesized above, the magnitude of a focal firm's wrongdoing decreases the positive tenor of media coverage. More specifically, a product recall will induce negative emotions among interested stakeholders who view the recall as a violation of their expectations of appropriate firm behavior (Floyd et al., 1999; Greifeneder et al., 2011; Mishina et al., 2012). Research in social psychology suggests that individuals in emotional states are more likely to avoid cognition that is inconsistent with an overall perception they hold (e.g., Chaiken, Liberman, & Eagly, 1989; Festinger, 1957; Forgas, 1995). That is, information that reinforces social perceptions

about a firm's recall is more likely to be utilized when subsequent judgments are made (cf. Mishina et al., 2012). Thus, the media may be more likely to attend to a firm's technical actions because they are interpreted as related to the recall and are consistent with the already-established impressions that the media and stakeholders have of the wrongdoing firm.

In line with these arguments, the crisis and impression management literature suggests that taking actions that signal a firm is in control and addressing the problem is effective in helping the firm recover from wrongdoing (Coombs, 2007; Mishina et al., 2012; Pfarrer, et al., 2008). Consequently, theory suggests, and empirical studies have shown, that the focal firm can effectively restore its social approval after wrongdoing by directly identifying the cause of the problem, dedicating resources to minimizing the effects of the negative event, and addressing the perceived violation as soon as possible (Elsbach, 1994; Mercer, 2005; Mishina et al., 2012; Pfarrer, et al., 2008a). The firm can do this by providing information subsidies that direct the media's attention to the changes made to the firm's internal processes and reinforce the ways the firm is perceived to be rectifying the problem.

In contrast, the media may view ceremonial actions as inconsistent with their perceptions of the focal firm subsequent to wrongdoing. Because wrongdoing is perceived as a negative violation of social expectations, it is a more salient and dominant cue than positive actions in which the firm may engage (Lingle, Geva, Ostrom, Leippe, & Baumgardner, 1979). Moreover, negative behaviors are perceived as more diagnostic than positive behaviors after social violations (Mishina et al., 2012). They also tend to be "stickier" (Skowronski & Carlston, 1987), making it more difficult for the firm to restore its social approval after wrongdoing simply by engaging in ceremonial actions that are perceived as positive. As a result, attempts to deflect or alter current stakeholder perceptions by emphasizing highly visible actions that are consistent with social expectations (Ashforth & Gibbs, 1990) may backfire. If these actions are viewed as superficial or hypocritical, the media and stakeholders could perceive them with suspicion, distrust, and skepticism (Desai, 2011; Elsbach, Sutton, & Principe, 1998; Lyon & Maxwell, 2011; Mishina et al., 2012). In sum, the negative impressions generated by a firm engaged in wrongdoing will dominate the impression formation process. In turn, the media may suspect concealed motivation behind ceremonial actions, which would hinder the firm's attempts at

"analytical" and "affective" (e.g., Epstein, 1994; Hastie & Dawes, 2001), "substantive" and "symbolic" (Westphal & Zajac, 1998), and "threat-addressing" and "attention-deflecting" (Elsbach & Kramer, 1996).

restoring its positive media coverage. We therefore hypothesize:

Hypothesis 4a. A firm's announcements of technical actions attenuate the negative effect of the firm's wrongdoing on the tenor of media coverage about the firm.

Hypothesis 4b. A firm's announcements of ceremonial actions amplify the negative effect of the firm's wrongdoing on the tenor of media coverage about the firm.

Actions after industry wrongdoing. We theorize that the relationships hypothesized above will be reversed when others in a firm's industry, rather than the firm itself, have engaged in wrongdoing. We derive our logic from the increased levels of uncertainty the media and stakeholders face when attributing wrongdoing to a specific firm. In this case, an innocent firm may be able to distance itself from wrongdoers in its industry by deflecting the attention of the media away from the transgressions of peers and toward the focal firm's positive actions and attributes (Elsbach & Kramer, 1996). If the media portray the focal firm as the perpetrator of wrongdoing, there is likely little uncertainty among stakeholders about its culpability. In contrast, just as stereotypes are formed about people, when some firms in the industry are engaged in wrongdoing, observers may think that other industry members are guilty of wrongdoing as well (Jonsson et al., 2009; Yu et al., 2008). In this case, the beliefs about a specific firm's culpability, however, are less certain. Thus, the media may interpret actions taken by a firm that is perceived to be guilty by association differently than actions taken by the perpetrating firm.

After a firm's competitors have engaged in wrongdoing, the firm's announcements of technical actions may draw attention to its operations and reinforce negative impressions about the firm stemming from its membership in a guilty industry. Additionally, stakeholders may interpret the firm's announcements of technical actions in the context of industry wrongdoing as an indication that the firm is encountering problems similar to those of its competitors, but that its wrongdoing simply has not been exposed yet. Thus, in this instance, taking technical actions may signal that a firm is also culpable.

Ceremonial actions, in contrast, are highly visible actions that "are consistent with social expectations [but leave] the essential machinery of the organization intact" (Ashforth & Gibbs, 1990: 181). The purpose of ceremonial actions is to appear to adhere to the norms and expectations of the larger

social context in which a firm operates and to promote the belief that the firm's activities are congruent with the values and expectations of its stakeholders (Kirsch et al., 2009). Taking such actions amid industry wrongdoing may "invoke alternate categorization schemes" (Elsbach & Kramer, 1996: 466) by deflecting the media's attention away from industry wrongdoing and emphasizing the positive dimensions of the firm. These actions help firms that are not directly involved in product recalls avoid association with the wrongdoers (Elsbach & Kramer, 1996; Elsbach & Sutton, 1992) and help them differentiate themselves from the guilty industry by focusing media attention on socially desirable actions (Elsbach & Sutton, 1992). By doing so, firms may be able to recategorize themselves in the media by amplifying their positive attributes not associated with the wrongdoing of other firms.

Although the effect of ceremonial actions on the tenor of media coverage has not been studied empirically, recent research has shown that organizations that the media and stakeholders link to a guilty organization will avoid being "dragged down" (Greve et al., 2010: 89) by cutting off all ties to the wrongdoer (cf. Jensen, 2006; Sullivan, Haunschild, & Page, 2007). Similarly, executives who leave a firm prior to its failure are less likely to suffer demotions in their new jobs than managers who stayed (Semadeni, Cannella, Fraser, & Lee, 2008). Announcements of ceremonial actions may help reduce uncertainty about the character of a specific firm that stakeholders may otherwise have categorized as being guilty by association. Such announcements help a firm distance itself from the category of wrongdoers by deflecting the media's attention away from the transgressions of their competitors and toward the focal firm's positive attributes (Greve et al., 2010; Jonsson et al., 2009). In turn, the media are more likely to report positively about such a firm. Thus, we hypothesize:

Hypothesis 5a. A firm's announcements of technical actions amplify the negative effect of industry wrongdoing on the tenor of media coverage about the firm.

Hypothesis 5b. A firm's announcements of ceremonial actions attenuate the negative effect of industry wrongdoing on the tenor of media coverage about the firm.

METHODS

Sample

To test the hypotheses derived from our theoretical model, we examined media coverage of public

U.S. toy firms in each quarter from 1998 to 2007.² We focused on publicly traded firms because they are required to report financial statements and are also more likely than private firms to make public announcements regarding their actions due to their visibility in the media and the pressure of meeting stakeholders' expectations (e.g., Chen & Meindl, 1991; Marcus & Goodman, 1991; Salancik & Meindl, 1984; Sutton & Galunic, 1996). Our focus on one industry allowed us to examine media coverage within a clearly bounded area where firms affect, and are affected by, each other's actions. Our choice to examine the toy industry was also due to the industry's high level of concentration (www.hoovers.com), which provided a good context for examining instances in which firms were prone to experience negative spillover effects from competitors' actions (Yu et al., 2008).

To construct the sample, we used the CRSPSift2 and CPSC toy recalls databases to identify all companies whose primary business was listed within the toy industry from 1998 to 2007. Because several firms in the databases did not explicitly produce children's toys (e.g., casinos, golf courses, and golf equipment makers), we screened the pool in four additional steps to ensure that firms in our sample were relevant members of the toy industry. The first author and two trained research assistants (1) tracked each firm's ownership type (public or private) for the entire period of the study by using the SDC Platinum database; (2) evaluated each firm's (or in the case of subsidiaries, each parent firm's) SIC code; if the description of the SIC code included the word "toy" (SIC codes 3942, 3940, 3944, 5945, and 5092), the firm was retained in the sample; (3) used Hoover's database (www.hoovers.com) to conduct a company name search, retaining in the sample firms whose industry was listed in Hoover's as "Toys and Games" or "Toys and Games, Retail"; and (4) examined each firm's website to determine whether toys were its primary product. This search yielded 45 firms, 21 of which experienced toy recalls during the period of the study. Because some firms were not publicly traded throughout the entire period, the final sample consists of 940 firm-quarter observations for which all the variables of interest were observed.

² The Consumer Product Safety Commission (CPSC) began tracking toy recalls in 1974. As of 2007, the majority of recall announcements (51%) and the majority of recalled toys (59%) had occurred during the ten-year period of our study.

Variables

Tenor of media coverage. Our dependent variable is the tenor of media coverage about a firm. The media frame stories and influence stakeholders' perceptions about firms through their use of positive or negative language (Deephouse, 2000; McCombs, Llamas, Lopez-Escobar, & Rey, 1997; Pollock & Rindova, 2003). To measure the tenor of media coverage of a firm, we used the Lexis-Nexis database to identify articles published in the 50 largest U.S. newspapers by circulation and blogs³ from the first quarter of 1998 through the first quarter of 2008. This search resulted in approximately 37,500 articles and blog postings. We then analyzed the content of the articles and blogs about each firm in a given quarter using Linguistic Inquiry and Word Count (LIWC), text analysis software designed to determine the rate at which authors or speakers use words connoting positive or negative emotion in a given text (Pennebaker, Booth, & Francis, 2007).⁴ Like the authors of previous studies (e.g., Deephouse, 2000; Pew Research Center, 2008; Pfarrer et al., 2010; Pollock & Rindova, 2003), we calculated the percentage of positive and negative content in each article and coded it as positive if its total affective content was at least 66 percent positive and as negative if its total content was at least 66 percent negative.⁵

One issue that may arise from coding the affective content of entire articles and blogs through LIWC is confusion resulting from mentions of multiple firms in a text (cf. Carroll, 2009; Lamertz & Baum, 1998; Pollock et al., 2008). For example, an article may have predominantly negative affective content, but it may describe a specific firm in a positive light. To ensure that LIWC's coding program accurately reflected the tenor of coverage about a given firm and to follow established practices in content analysis methodology, the first and third authors recoded 100 randomly selected articles and blogs (cf. Desai, 2011; McCarthy, McPhail, & Smith, 1996; Pollock et al., 2008). A discrepancy between the tenor of an entire article and the tenor of coverage of a specific firm arose in only three cases: in each occurrence, the overall tenor of the

³ The "Web Blogs" category of Lexis-Nexis sources provides information published in 35 different blogs that contain postings of news discussions and public opinion on various issues (www.lexisnexis.com).

⁴ For an in-depth description of the reliability and external validity of LIWC results of text analysis, please see <http://liwc.net/liwcdescription.php>.

⁵ We also recoded each article's "positivity" at the 60 and 75 percent levels. Our results were unchanged.

article was negative, whereas the tenor associated with a specific firm was positive. As we have theorized above, however, stakeholders are likely to generalize the overall negative tenor of an article to any firm mentioned in it due to the high diagnosticity and likely spillover of negative information resulting from social violations (Carroll, 2009; Skowronski & Carlston, 1987). Thus, we concluded that in the rare event that the overall tenor of an article was negative, while the tenor associated with a specific firm was positive, the negative affect was likely to spill over to the firm mentioned positively.⁶

Researchers in management (Deephouse, 2000; Pfarrer et al., 2010; Pollock & Rindova, 2003), communications (Carroll, 2009), economics (Houser & Wooders, 2006), and finance (Tetlock, Saar-Tsechansky, & Macskassy, 2008) have measured the tenor of media coverage about a firm as the relative prevalence of positive over negative articles, feedback, or words. Following this research, we measure the tenor of media coverage about a focal firm as the difference between the number of positive and the number of negative articles and blog posts published about a firm.⁷ We measure the

⁶ It is also possible that the negative tenor of coverage of a given firm could overshadow the generally positive tone of an article (cf. Richey, Koenigs, Richey, & Fortin, 1975). Although we did not find any occurrences in our subsample, to the extent that they do exist, their omissions should result in more conservative tests of our hypothesized relationships.

⁷ An established measure of the tenor of media coverage is the Janis-Fadner (JF) coefficient of imbalance (Deephouse, 2000; Janis & Fadner, 1943). However, this and other ratio-based measures are less suitable in our sample for two reasons. First, high variance in the amount of coverage among firms may contribute to low criterion validity of the JF coefficient and other ratio-based measures. For instance, a firm with one positive article and no negative articles and a firm with 100 positive articles and no negative articles will both receive a score of 100 percent. Additionally, a firm with one positive article and no negative articles will receive a higher score than a firm with 100 positive articles and one negative article. Therefore, employing the JF coefficient and other ratio-based measures may restrict samples to highly publicized firms. For example, management studies that have used the JF measure focus on highly visible and prominent firms in multiple industries (e.g., Pfarrer et al., 2010; Pollock & Rindova, 2003). However, intraindustry studies similar to ours that employed the JF coefficient lost half of their sample size (e.g. Deephouse, 1996, 2000; Deephouse & Carter, 2005). Because it is essential for our study to uncover intraindustry dynamics and interdependencies between the actions of a focal firm and its competitors, the JF and other ratio-based

tenor of media coverage in the quarter of each recall and the following quarter to account for the effect on media coverage of the recall as well as the firm's information subsidies.

Firm wrongdoing. We measure firm wrongdoing as the sum of the number of toys recalled in a given quarter. To gain insight about U.S. firms' toy recalls, we turned to the Consumer Product Safety Commission (<http://cpsc.gov/cpscpub/prerel/category/toy.html>), an independent federal regulatory agency created in 1972 by the U.S. Congress as part of the Consumer Product Safety Act. It "is charged with protecting the public from unreasonable risks of serious injury or death from thousands of types of consumer products under the agency's jurisdiction" (www.cpsc.gov/about). Because sales of defective products may cause health hazards such as suffocation, laceration, poisoning, and in extreme cases, death (Beamish & Bapuji, 2008; www.cpsc.gov), product recalls violate stakeholder expectations about proper firm conduct. They are also accompanied by a loss of consumer confidence (Luo, 2008) and an increase in negative perceptions about the recalling firm (Beamish & Bapuji, 2008). In addition, product recalls can be interpreted as public admission of a specific type of wrongdoing—wrongdoing that is due to mismanagement (Bromiley & Marcus, 1989; Near, Rehg, Van Scotter, & Miceli, 2004)—because they are consequent to problems and errors in manufacturing and design (Beamish & Bapuji, 2008; Rhee & Haunschild, 2006) and occur after the sale of defective toys. We collected data on all recalls from 1998 to 2007. The 21 firms that recalled toys collectively experienced recalls of over 56 million toys associated with thousands of reported injuries and incidents.

Industry wrongdoing. We measure industry wrongdoing as the sum of all toys recalled in a given quarter, excluding a focal firm's toys.

Firm actions. To examine what types of actions are described in the information subsidies that firms issue, the first author collected and coded data from over 5,500 firm press releases disseminated by the Business Wire and PR Newswire databases, two leading sources for press releases that companies use to disseminate information

measures appeared not suitable. Second, an assumption underlying such measures is that arguments for or against a specific issue are equally salient. However, research in social psychology suggests that people perceive negative information to be as much as five times more salient than positive or neutral information (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Fiske & Taylor, 1998; Richey et al., 1975), an issue we address in the robustness checks section below.

about their actions (www.businesswire.com; www.prnewswire.com). We chose press releases as a source of information on firms' actions because they are reports that firms themselves view as important and because the media use them as information sources about firm actions (Carroll & McCombs, 2003; Kennedy, 2008). All public companies issue press releases at least quarterly. Some studies have used industry publications to measure firm actions (Basdeo, Smith, Grimm, Rindova, & Derfus, 2006; Smith, Grimm, Gannon, & Chen, 1991), but in our context smaller firms are less likely to be mentioned in these media outlets. Using firms' press releases thus allows us to minimize this potential bias. By doing so, we also control for the alternative explanation that the visibility of a firm's actions through media coverage is driving our results, as information on both technical and ceremonial actions from press releases is equally visible to the media and external stakeholders. To ensure the reliability of the initial coding, a trained research assistant recoded a subsample of press releases about firm actions in 40 randomly selected firm-quarters. The values of Krippendorff's alpha coefficient for interrater reliability were 0.90 and 0.86 for technical and ceremonial actions, respectively, indicating high reliability (Krippendorff, 2004; Short, Broberg, Coglisier, & Brigham, 2010).

To code firms' actions, we employed a structured content analysis method (cf. Duriau, Reger, & Pfarrer, 2007) widely used in the competitive dynamics literature (e.g., Basdeo et al., 2006; Smith et al., 1991). Because in a given quarter, some companies made several announcements about the same action, while others made only one announcement, we used a binary measure in which each category of actions was coded 1 for a quarter in which a firm announced the action and 0 otherwise. To create the categories of technical and ceremonial actions a firm announced in a given quarter, we summed the binary measures of action types that belong to each of the two categories. We measure technical actions—actions that are perceived as addressing the problem of manufacturing and selling defective toys—as the sum of the following: changes in operations and distribution channels, changes in production management, improvements in manufacturing processes, start of investigations, discontinuance of product shipments, compensation for defective products, and cooperation with regulatory agencies investigating the recalls. We measure ceremonial actions—actions that do not directly address the cause of a recall but instead highlight positive characteristics of a firm—as the sum of the following: firm name changes, celebrity endorsements, charitable donations, promotions and

sweepstakes, acts of corporate citizenship (e.g., sponsoring children's talent shows), and announcements of company awards.

In the context of this study, for instance, following a recall of ten million Power Wheels® by Fisher-Price in October 1998, the parent company, Mattel, issued a number of press releases updating the public on the progress of the work of the toy repair centers it opened, in which qualified electricians received and repaired shipments of defective toys. Similarly, after toy recalls in summer 2007, RC2 announced suspended shipments of defective toys with the following explanation: "During the quarter we suspended shipment of products that are subject to the wooden toy voluntary recall announced on June 13, 2007" (Business Wire, 2007). Such actions were categorized as *technical* in our sample.

In contrast, after Hasbro recalled nearly nine million toys in June 2000, no company press releases mentioned the recall; rather, the day following the recall Hasbro issued a press release announcing the winners of Hasbro Teens With The Courage To Give Awards™. As another example, in 2005 Action Products International Inc. provided "free learning materials to teachers at over 8,000 public and private schools across the country" (Business Wire, 2006). Such actions were categorized as *ceremonial*. To ensure that the coded firm actions occurred after wrongdoing, we measure technical and ceremonial actions in the quarter following the measure of wrongdoing.

Control variables. An alternative explanation for our findings is a size effect: large firms in our sample recall more toys, take more actions, and may enjoy more positive coverage in the press. To account for this possibility, we include *firm size* as a control variable measured by assets of a focal firm in a given quarter. This information was obtained from the CRSPSift2 database. To delineate the effect of current wrongdoing on subsequent levels of media coverage, we include *social memory of firm wrongdoing* and *social memory of industry wrongdoing* as two control variables. We measure social memory of firm wrongdoing as the sum of the number of toys recalled by a firm and a decay measure that assigns a weight of $1/n$ for each quarter prior to the quarter of the recall. We measure social memory of industry wrongdoing as the sum of the number of toys recalled by the firm's competitors and the decay measure. Employing a decayed measure accounts for the residual effect of social memory about the firm's or competitors' past actions and thus reflects the media's and stakeholders' cumulative perceptions about the firm (cf. Darr, Argote, & Epple, 1995; Pfarrer et al., 2010). Both variables are measured in the quarter prior to a recall. Additionally, we control for the number of *injuries*

and also for *incidents*, the official CPSC term for consumer-reported toy defects that did not result in any physical harm to children. We also control for the *average price of toys recalled* in a given quarter as well as the *amount of media coverage*. We measure the latter by the number of articles published about a firm in a given quarter. To delineate the tenor of media coverage of the firm as distinct from that of coverage of the toy industry in general, we control for the *tenor of media coverage about the industry*, measured as the difference between the number of positive and negative articles published about a firm's competitors in the quarter of a recall and the following quarter. As the operations of the U.S. toy industry are seasonal, in that more toys are sold during the holiday season (Freedman, Kearney, & Lederman, 2012; Johnson, 2001), we also include a *fourth quarter* dummy in our analysis. Finally, the largest number of toy recalls occurred in 1998 and 2007. We therefore include dummies for both of those years.

Data Analysis

To test our hypotheses, we selected an estimation procedure that was appropriate for our theoretical arguments and was robust to typical issues that arise with analyses of panel data. Because we controlled for previous levels of firm and industry wrongdoing, we were cognizant that autocorrelation could affect our results. Using the Wooldridge test of autocorrelation (via the Stata command "xtserial"), we rejected the null hypothesis of absence of autocorrelation. To address this issue, we implemented the Arellano-Bond model and the generalized method of moments (GMM) procedure (Arellano & Bond, 1991; Halaby, 2004; Wade, Porac, Pollock, & Graffin, 2006), which includes a lagged dependent variable as an instrument. Additionally, this estimation reports first differences, thus accounting for the change in the tenor of media coverage over each period and making it functionally similar to a fixed-effects model (Halaby, 2004). The Arellano-Bond model is also robust to heteroskedasticity and violations of normality, making it suitable for the panel structure of our sample (Arellano & Bond, 1991; Halaby, 2004). Because three of our hypotheses predict a moderation effect, we standardized all variables to account for possible multicollinearity between the main effects and interaction effects (Aiken & West, 1991).

RESULTS

Table 1 shows descriptive statistics of unstandardized variables and correlations for the standardized variables of interest. Using the full model, we tested all the variables for the presence of mul-

ticollinearity. All variance inflation factors were below 6, with an average of 2.44; thus, multicollinearity was not a concern (Chatterjee & Price, 1991). Table 2 presents the results of the hypotheses' tests. Model 1 includes control variables; model 2 illustrates the results of the main effects regression; and model 3 is the full model that tests all main and interaction effects. The chi-square difference test indicates a marginally significant, positive difference between model 1 and model 2 ($\chi^2[4] = 8.38, p < .10$) and a significant positive difference between model 2 and model 3 ($\chi^2[5] = 110.25, p < .001$), suggesting that model 2 fits the data better than model 1 and that the full model, model 3, is the best fit for the data, demonstrating joint significance of all five interaction terms ($\chi^2[5] = 82.63, p < .001$). We utilize model 2 to interpret the results of the main effects (Hypotheses 1 and 2 [Aiken & West, 1991]) and model 3, the full model, to interpret the interaction effects (Hypotheses 3, 4a and 4b, and 5a and 5b).

To test Hypotheses 1 and 2, we regressed the main effects of firm and industry wrongdoing on the tenor of media coverage and a vector of control variables as well as technical and ceremonial actions. As model 2 shows, consistently with Hypothesis 1, firm wrongdoing had a significant negative effect on the tenor of media coverage ($\beta = -0.03, p < 0.05$). The coefficient indicates that if a firm recalled 635,000 toys (one standard deviation above the mean), the number of negative articles published about it would increase by slightly more than 2 (-0.03×72). Hypothesis 2 predicts that higher levels of industry wrongdoing are associated with a more negative tenor of media coverage. Industry wrongdoing had a marginally significant, negative effect on the tenor of media coverage ($\beta = -0.02, p < .10$). Thus, Hypothesis 2 receives marginal support and indicates that if the number of toys recalled by a firm's competitors increased by 3,489,000 (one standard deviation above the mean), the media would publish approximately 1.5 more negative articles about the focal firm (-0.02×72).

Although the effects of firm and industry wrongdoing on the tenor of media coverage may seem small, when interpreting these results one should consider the widely observed positivity bias in the business press (Deephouse, 2000; Fombrun & Shanley, 1990; Pollock & Rindova, 2003) and the perceived salience and diagnosticity of negative information for social perceptions (Baumeister et al., 2001; Richey et al., 1975). Thus, stakeholders may perceive a small increase in neutral or negative articles as a definite negative signal, much like financial analysts' "hold" recommendations (Abarbanell & Lehavy, 2003; Brown, 2001; Skinner &

TABLE 1
Descriptive Statistics and Correlations^a

Variable	Mean	s.d.	Minimum	Maximum	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Tenor of media coverage of focal firm _{<i>t</i> + (<i>t</i> + 1)}	30.99	71.93	-4.00	443.00															
2. Firm wrongdoing ^b	0.60	6.35	0.00	113.22	.27*														
3. Industry wrongdoing ^b	14.65	34.89	0.00	154.00	-.01	.03													
4. Technical actions _{<i>t</i> + 1}	0.26	0.53	0.00	5.00	.17*	.07*	.00												
5. Ceremonial actions _{<i>t</i> + 1}	0.35	0.72	0.00	4.00	.40*	.08*	-.08*	.12*											
6. Social memory of prior firm wrongdoing _{<i>t</i> - 1}	1.79	8.14	0.00	127.10	.43*	.08	-.03	.15*	.30*										
7. Social memory of prior industry wrongdoing _{<i>t</i> - 1}	44.14	37.65	0.59	160.01	-.07*	-.04	-.11*	.01	-.12*	-.04									
8. Assets ^c	799.80	1,773.32	0.00	10,695.00	.87*	.15*	-.04	.16*	.38*	.32*	-.08*								
9. Articles	28.99	74.21	0.00	841.00	.92*	.38*	.01	.16*	.35*	.42*	-.06	.83*							
10. Injuries	0.70	8.83	0.00	197.00	.17*	.44*	.01	.03	.06	.07*	.01	.12*	.15*						
11. Incidents	3.75	41.55	0.00	705.00	.24*	.69*	.02	.06	.08*	.08*	-.04	.13*	.30*	.56*					
12. Average price of recalled toys	1.31	7.66	0.00	140.27	.25*	.54*	.01	.16*	.10*	.23*	-.05	.17*	.27*	.26*	.61*				
13. Tenor of industry media coverage _{<i>t</i> + (<i>t</i> + 1)}	908.91	284.58	408.00	1,573.00	-.15*	.01	.39*	-.02	-.19*	-.07*	.27*	-.24*	-.14*	-.01	-.01	-.04			
14. Year 1998	0.11	0.31	0.00	1.00	.00	.05	.36*	.01	-.09*	-.07*	-.39*	-.04	-.01	-.01	.09*	.04	.24*		
15. Year 2007	0.06	0.25	0.00	1.00	.04	.09*	.17*	.10*	.03	.10*	.18*	.02	.08*	.02	.06	.12*	.03	-.09*	
16. Fourth quarter	0.25	0.43	0.00	1.00	.04	.02	.16*	-.01	.00	.02	.03	.02	.09*	-.04	.00	.34*	.07*	.00	

^a *n* = 940.

^b Hundreds of thousands.

^c Millions.

* *p* < .05

TABLE 2
Results of Arellano-Bond Analyses Predicting Tenor of Media Coverage^a

Variables	Model 1	Model 2	Model 3
Firm wrongdoing (H1)		-0.03*	0.00
Industry wrongdoing (H2)		-0.02 [†]	-0.01
Firm wrongdoing × industry wrongdoing (H3)			0.02*
Firm wrongdoing × technical actions (H4a)			0.05***
Firm wrongdoing × ceremonial actions (H4b)			-0.09***
Industry wrongdoing × technical actions (H5a)			-0.01
Industry wrongdoing × ceremonial actions (H5b)			0.03*
Technical actions _{t + 1}		-0.01	-0.01
Ceremonial actions _{t + 1}		0.00	0.01
Tenor of media coverage of focal firm _{t - 1}	0.30***	0.29***	0.19***
Social memory of prior firm wrongdoing _{t - 1}	-0.01	-0.01	0.00
Social memory of prior industry wrongdoing _{t - 1}	0.02 [†]	0.02	0.02
Assets	0.52***	0.51***	0.46***
Articles	0.30***	0.33***	0.42***
Injuries	0.00	0.00	-0.01
Incidents	0.02	0.03*	0.05**
Average price of recalled toys	-0.01	0.00	-0.04***
Tenor of media coverage of industry _{t + (t + 1)}	0.08***	0.08***	0.09***
Year 1998	0.22***	0.24***	0.21***
Year 2007	-0.09 [†]	-0.07	-0.07
Fourth quarter	-0.09***	-0.09***	-0.11***
Constant	0.08***	0.08***	0.10***
χ^2	1,114.75	1,123.13	1,233.38

^a The Arellano-Bond model uses a lagged dependent variable as an instrument. Thus, the number of observations ($n = 897$) is smaller than in the original sample.

[†] $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$

Sloan, 2002) or a lukewarm recommendation letter from a previous employer (Range Menyhert, Walsh, Hardin, Ellis, & Craddick, 1991; Siskind, 1966).

Hypothesis 3 predicts that industry wrongdoing will attenuate the negative effect of firm wrongdoing on the tenor of media coverage about a focal firm. Model 3 presents the test of this hypothesis. The interaction coefficient of firm wrongdoing and industry wrongdoing was positive and significant ($\beta = 0.02$, $p < .05$). To interpret this result in more detail, we graphed the moderating relationship (Aiken & West, 1991; Hoetker, 2007). Figures 1–4 are drawn using the respective coefficients from model 3, with “low” indicating levels of the standardized variables one standard deviation below the mean and “high,” one standard deviation above the mean. Concerning Hypothesis 3, Figure 1 illustrates that the negative effect of firm wrongdoing on the tenor of media coverage about a focal firm was attenuated with increasing levels of industry wrongdoing. This indicates that it is more damaging for firms to recall products when very few other firms engage in recalls. Conversely, recalling products during periods when others engage in recalls seems to have a less adverse effect on the tenor of a

focal firm’s coverage. This result suggests that high industry wrongdoing provides a safety-in-numbers effect for firms engaged in product recalls. Thus, Hypothesis 3 is supported.

Hypothesis 4a predicts that technical actions will attenuate the negative effect of firm wrongdoing on the tenor of media coverage, and Hypothesis 4b predicts that ceremonial actions will amplify this effect. Model 3 confirms that the interaction term of firm wrongdoing and technical actions was positive and significant ($\beta = 0.05$, $p < .001$), but the interaction term of firm wrongdoing and ceremonial actions was negative and significant ($\beta = -0.09$, $p < .001$). Thus, Hypotheses 4a and 4b are supported. Figures 2 and 3 illustrate these relationships. Figure 2 shows that technical actions are more effective with increased levels of firm wrongdoing. Figure 3, however, shows the opposite relationship: ceremonial actions amplify the negative effect of firm wrongdoing on the tenor of media coverage.

Hypothesis 5a predicts that technical actions will amplify the negative effect of industry wrongdoing on the tenor of media coverage about a firm, and Hypothesis 5b predicts that ceremonial actions will attenuate this effect. As can be seen from model 3

FIGURE 1
Moderation Effect of Industry Wrongdoing on the Relationship between Firm Wrongdoing and Tenor of Media Coverage

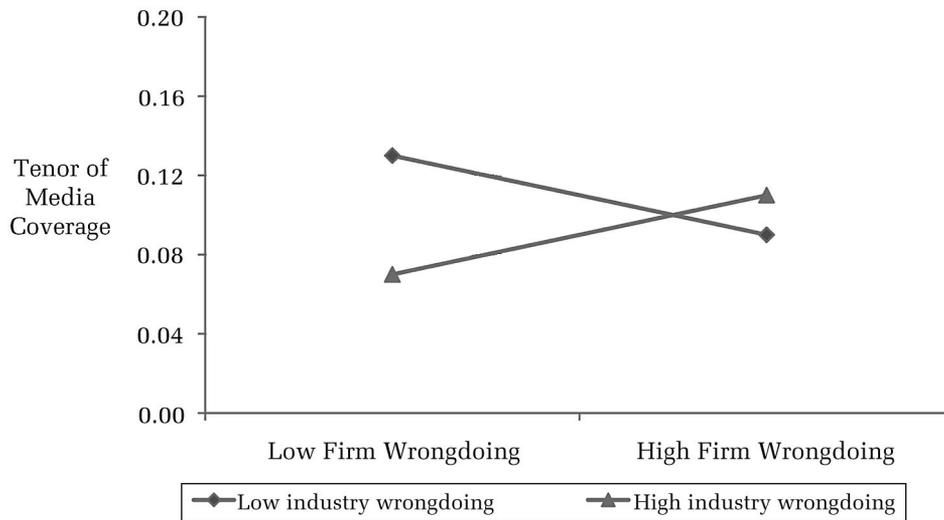
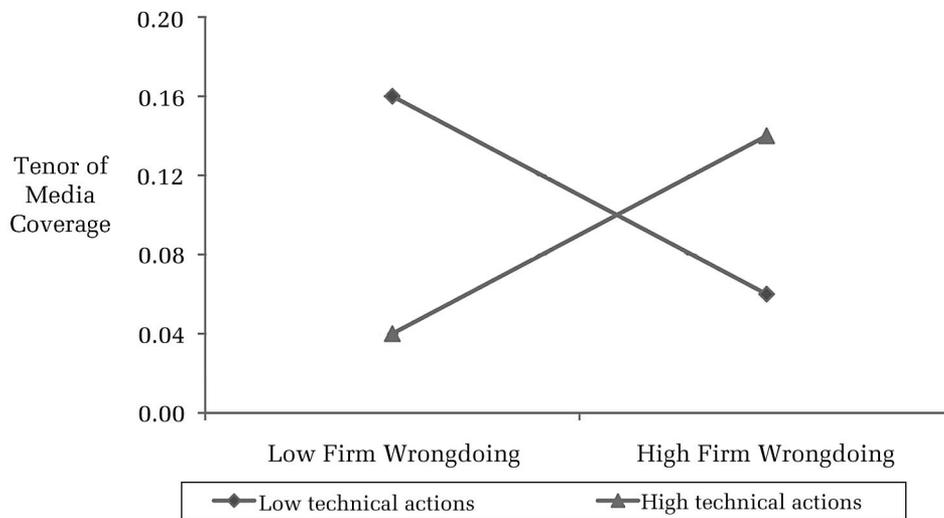


FIGURE 2
Moderation Effect of Technical Actions on the Relationship between Firm Wrongdoing and Tenor of Media Coverage

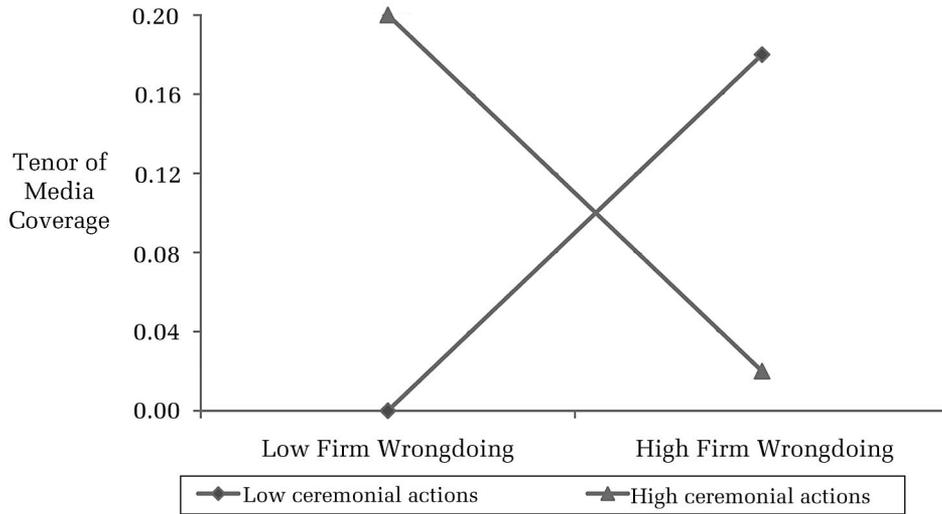


in Table 2, the interaction term of industry wrongdoing and technical actions was not significant, indicating a lack of support for Hypothesis 5a. In contrast, the interaction coefficient of ceremonial actions and industry wrongdoing was positive and significant ($\beta = 0.03, p < .05$), supporting Hypothesis 5b. To better understand the significant relationship in Hypothesis 5b, we graphed it. Figure 4 illustrates that the relationship between industry wrongdoing and the tenor of media coverage about a focal firm becomes less negative with an increase in the number of the firm's ceremonial actions.

Robustness Checks

Alternative operationalizations of tenor of media coverage. In addition to the alternative specifications of our dependent variable (described in footnote 5) several other robustness checks were conducted. First, to account for the larger perceived salience and impact of negative information on media coverage and stakeholders' perceptions (Baumeister et al., 2001; Fiske & Taylor, 2008; Wartick, 1992), we weighted the number of negative articles in our composite measure by 2, 3, 4,

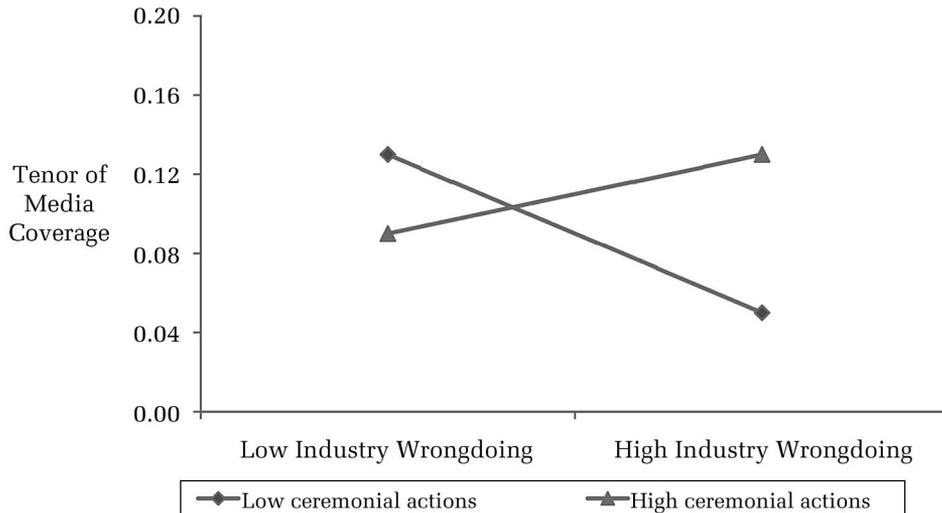
FIGURE 3
Moderation Effect of Ceremonial Actions on the Relationship between Firm Wrongdoing and Tenor of Media Coverage



and 5 times. Our results remained substantively unchanged. Second, following research in social psychology that suggests that positive and negative emotions lie on two separate continua rather than a single continuum (Brief & Motowidlo, 1986; Cacioppo & Gardner, 1999; Rindova et al., 2006), and relying on prior empirical work that separates positive and negative information into two distinct constructs (Houser & Wooders, 2006; Tetlock et al., 2008), we reran our analyses using (1) the sum of *positive* articles and (2) the sum of *nonpositive* (i.e., neutral and negative) articles as two alternative

dependent variables. Our latter measure is consistent with the above-mentioned prevalence of a positivity bias in the business press, which may lead to interpretations of statements neutral (i.e., nonpositive) in tenor as negative (Abarbanell & Lehavy, 2003; Houser & Wooders, 2006; Siskind, 1966; Tetlock et al., 2008). For the former measure, our results remained unchanged, signaling that toy recalls and subsequent firm actions affect the absolute levels of positive media coverage in the same way that they affect our primary dependent variable. Similarly, for the latter measure, our re-

FIGURE 4
Moderation Effect of Ceremonial Actions on the Relationship between Industry Wrongdoing and Tenor of Media Coverage



sults were mostly supported, but, as expected, in the *opposite* direction, indicating that toy recalls increase the number of nonpositive articles and that firm actions can amplify or attenuate these effects. Given the highly positive skew of coverage in the business press that we mention above, both a decrease in positive tenor and an increase in nonpositive tenor lend credence to our arguments.

Endogeneity of recalls and actions. Because of the dynamic interaction between a firm, its competitors, and media coverage of their actions, we also investigated whether endogeneity due to unobserved variables may have affected our analyses.

First, we conducted an interview with a CPSC official to learn more about the toy recall process. The official stated that recalls are not usually initiated by toy manufacturers; rather, after the CPSC becomes aware of a defective toy, a representative contacts the manufacturer to request a recall. The official also indicated that toy companies always comply, which makes toy recalls involuntary exogenous shocks to the firms' operations. We also obtained evidence for the exogeneity of product recalls from the CPSC's website (www.cpsc.gov) and recent research on toy recalls (Beamish & Bapuji, 2008; Freedman et al., 2012).

Further, to empirically support our theoretical and qualitative evidence, we ran a two-stage Heckman correction model. In the first stage, following recommendations for the selection of appropriate variables (Bascle, 2008; Hamilton & Nickerson), we regressed prior firm wrongdoing, year dummies for 1998 and 2007, and the number of toys recalled two quarters after a focal quarter on the likelihood of a firm's recalling toys. We selected the latter predictor variable, the number of recalled toys in $t + 2$, as our instrument in the first stage because it was indicative of the firm's propensity to recall toys in the focal quarter, but it was not indicative of our second-stage dependent variable, the tenor of media coverage (Bascle, 2008; Hamilton & Nickerson, 2003). The selected instrument as well as prior levels of firm wrongdoing significantly predicted the probability of recalling a toy, but the year dummies did not. The inverse Mills ratio was not significant in the second stage. Taken together, our findings suggest that toy recalls are an exogenous variable (Bascle, 2008; Mesquita & Brush, 2008; Tong, Reuer, & Peng, 2008).

Second, to test for the potential endogeneity of technical and ceremonial actions, we ran two two-stage Heckman correction models and two Davidson-MacKinnon tests of exogeneity (using the Stata command "dmexogxt"), the latter of which followed two-stage least squares estimation for each type of actions. In the first stage of each Heckman

estimation, we selected the number of technical (ceremonial) actions taken by a firm two quarters after a recall as our instrument, as it was theoretically associated with the firm's propensity to take technical (ceremonial) actions but not with our dependent variable in the second stage, the tenor of media coverage. We also included firm wrongdoing, firm assets, and a dummy for the fourth quarter in our first-stage model, as theoretically they should influence a firm's propensity to engage in technical or ceremonial actions. In both iterations, our selected instruments and firm assets significantly predicted propensity to engage in either technical or ceremonial actions, but firm wrongdoing and the fourth-quarter dummy did not. Inverse Mills ratios in both estimations were not significant, indicating that both types of actions were exogenous. With these robustness checks, we believe we have ruled out the most likely explanations of endogeneity in our hypothesized relationships. However, as in all social science research, we cannot conclusively claim causality in our relationships or definitively rule out alternative explanations (Bascle, 2008; Hamilton & Nickerson, 2003).

DISCUSSION

Theoretical Contributions

With this study, we make several contributions to organizational theory. First, we extend recent research that has examined the influence of intermediaries on firm-level and industry-level outcomes but has paid little attention to how intermediaries themselves can be influenced by the firms they cover (Pollock et al., 2008; Westphal & Deephouse, 2011). We contribute to this research stream by explicating the strategies firms take to influence media reporting following their own or industry wrongdoing. Drawing from research that aims to understand how individuals make sense of a firm's actions relative to its peers and industry (e.g., Greve et al., 2010; Porac & Thomas, 1990; Reger & Palmer, 1996), we also provide insight into the process through which firms become associated with or disassociated from the cognitive categories that stakeholders construct from media coverage, depending on the source of wrongdoing.

Second, our focus on a specific industry allowed us to generate novel theoretical arguments that delve into the cognitive categorizations of technical and ceremonial actions a firm may take after wrongdoing. We base our categories of firm actions on how they are likely to be perceived by the media and stakeholders. Additionally, we drew on research in social psychology to explain how the two

types of actions affect the media and stakeholders differently under different circumstances. By doing so, we extend crisis and impression management research that has investigated how firm accounts affect stakeholder responses but has not provided sociocognitive explanations for why specific accounts are more or less effective under different circumstances. By taking technical actions after wrongdoing in an industry, a firm may remind stakeholders about its membership in the industry, and this may reinforce already-established negative impressions of the firm. Taking ceremonial actions may also backfire if the firm engaged in wrongdoing, because such tactics could be interpreted as self-serving and cynical. We believe that the theoretical categories of actions developed in this study will be useful in guiding future research beyond the domain of social approval. For instance, classifying firm actions by how they are likely to reinforce or deflect the attention of competitors may yield interesting results in competitive dynamics research (Smith et al., 1991). We also recognize that there are opportunities to develop more nuanced categories that may more fully encompass the range of information subsidies available to firms when responding to wrongdoing. We encourage future studies to examine these possibilities in more depth.

Additionally, we extend research on the formation of stakeholders' judgments about firm's actions that violate social expectations (e.g., Mishina et al., 2012; Skowronski & Carlston, 1987) by theoretically investigating and providing support for the relative effectiveness of a firm's actions in restoring the positive tenor of media coverage after a violation takes place. However, although our focus on toy recalls allowed us to test previously unexamined dynamics in a specific industry, our study does not account for potential variance in the way different stakeholder groups interpret firm actions. It is possible that while the media and consumers may view product recalls in the toy industry as negative actions that violate social norms and put customers at risk, other stakeholder groups, such as investors, may interpret such actions differently, perhaps as necessary quality control practices. Furthermore, given the sensitivities associated with toy recalls and recalled toys' potential to harm children, product recalls in other industries may not be viewed similarly, and they may not lead to the same levels of decline in social approval. For example, it would be informative to know if recalls of other consumer products, such as appliances or electronics, would generate the same kind of media coverage and firm impression management strategies as we have seen here. Finally, different kinds of wrongdoing due to mismanagement, such as

earnings restatements, financial fraud, and environmental compliance failures (e.g., Mishina, Dykes, Block, & Pollock, 2010; Pfarrer, Smith, 2008), may affect the media and stakeholder groups differently and thus alter the effectiveness of firm actions in ways other than those we saw in this study. For example, research has investigated the effects of wrongdoing associated with competence or capability and those associated with character or integrity (e.g., Mishina et al., 2012; Skowronski & Carlston, 1987, 1989). It appears that in our case, the media and stakeholders perceive toy recalls as more of an integrity violation than a competence violation. That is, they consider a toy recall a violation of acceptable values and norms. Thus, we would expect, and have theorized above, that negative information would have greater weight and higher diagnosticity for media and stakeholder perceptions in this context. Therefore, the effectiveness of a firm's actions depends on how the firm refocuses attention to a recall. Of course, the effects of technical and ceremonial actions on the tenor of media coverage and stakeholders' perceptions may be different for competence- and performance-based violations, such as a negative earnings surprise or a sudden drop in sales (Pfarrer et al., 2010). We encourage researchers interested in the links among firm wrongdoing, firm actions, and media coverage to examine the relationships tested here in other industries and among multiple stakeholder groups.

Finally, by focusing on the dynamics occurring between a firm and its peers in a specific industry, we extend nascent organizational research on negative spillovers that has begun to examine these relationships (e.g., Barnett & Hoffman, 2008; Kang, 2008; Kostova & Zaheer, 1999). Specifically, by utilizing sociocognitive arguments, we add explanatory mechanisms to recent findings of direct negative spillover effects. Additionally, our finding of a safety-in-numbers effect for a focal firm after a recall provides new sociocognitive insights into industry dynamics that can influence media coverage after a negative event.

Empirical Contributions

Our first empirical contribution is in conducting a ten-year analysis of over 37,500 articles that reflect changes in media coverage of firms and a content analysis of over 5,500 press releases about firm actions. Previous research in crisis and impression management has been largely qualitative and case-based (e.g., Coombs, 2007; Elsbach, 2003), and it has not explicitly tested the interdependencies among an industry engaged in wrongdoing, a

firm's actions following its own or its competitors' wrongdoing, and the media's coverage of these dynamics. To our knowledge, this is the first large-scale empirical investigation that tests how a focal firm's actions influence media coverage of wrongdoing and how this influence may vary depending on the source of the wrongdoing. A second empirical contribution of our study is our use of firms' press releases as sources of information about firms' actions as well as our use of blogs as one of the media sources that influence and reflect social perceptions. Our use of press releases allowed us to investigate intraindustry dynamics by observing announced actions of large and small firms alike. Our use of blogs extends previous research on infomediaries that focuses only on the official press and allows us to obtain a measure more closely related to perceptions of certain stakeholder groups (Jin & Liu, 2010).

Finally, our use of advanced content analysis techniques to code affective content of articles and blog posts continues to extend recent organizational research on social perceptions management that recognizes the importance of trying to open the black box that is often present in strategy research (e.g., Pfarrer et al., 2010; Pollock & Rindova, 2003; Pollock et al., 2008; Short et al., 2010). We recognize the coarseness of our firm-quarter observations and the potential limitations of our computer-aided coding processes, including the difficulty in rectifying dissonant descriptions within a text (cf. Lamertz & Baum, 1998; Pollock et al., 2008). However, continuous advances in content analysis should permit scholars to gather increasingly larger amounts of text and code them with increasingly finer-grained techniques (Duriau et al., 2007).

Practical Implications

Our study also has practical implications for managers in industries prone to actions that violate societal norms and that attract negative press, and our findings may have broader implications for contexts in which wrongdoing is rarer. The interaction effect between focal firm and industry wrongdoing in our study suggests that (1) low levels of industry wrongdoing provide a context for maximum penalties in the media when a firm violates societal expectations, but high levels of industry wrongdoing may provide a safety net for offenders, and (2) firms that do not engage in wrongdoing nevertheless experience declines in the positive tenor of media coverage if their industry as a whole has high levels of wrongdoing. Thus, firms may want to work together to maintain lower levels of industry wrongdoing through higher safety and

quality standards to limit negative media attention and exposure to regulators (cf. Pfarrer et al., 2008).

The second practical implication of our findings is that when a firm or its competitors engage in wrongdoing, managers can use information subsidies to influence how the firm is covered in the media. If a firm itself recalls a product, managers should be aware that announcements of technical actions are more likely to restore the positive tenor of media coverage than announcements of ceremonial actions. However, when the level of industry wrongdoing is high and, especially, when the focal firm has not engaged in wrongdoing, announcements of ceremonial actions are a more effective strategy than announcements of technical actions. Taken together, our research findings suggest that "managing the message" is an important part of a firm's strategy, and firms might benefit from a combination of technical and ceremonial actions, depending on whether the firm itself or its competitors engaged in wrongdoing.

REFERENCES

- Abarbanell, J. S., & Lehavy, R. 2003. Biased forecasts or biased earnings? The role of earnings management in explaining apparent optimism and inefficiency in analysts' earnings forecasts. *Journal of Accounting and Economics*, 24: 675-723.
- Ahmadjian, C. L., & Robinson, P. 2001. Safety in numbers: Downsizing and the deinstitutionalization of permanent employment in Japan. *Administrative Science Quarterly*, 46: 622-654.
- Aiken, L. S., & West, S. G. 1991. *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Alvesson, M. 1990. Organization—From substance to image. *Organization Studies*, 11: 373-394.
- Arellano, M., & Bond, S. 1991. Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies*, 58: 1991.
- Ashforth, B. E., & Gibbs, B. W. 1990. The double-edge of organizational legitimation. *Organization Science*, 1: 177-194.
- Bandura, A. 2001. Social cognitive theory of mass communication. *Media Psychology*, 3: 265-299.
- Barnett, M. L., & Hoffman, A. J. 2008. Beyond corporate reputation: Managing reputational interdependence. *Corporate Reputation Review*, 11: 1-9.
- Barnett, M. L., & King, A. A. 2008. Good fences make good neighbors: A longitudinal analysis of an industry self-regulatory institution. *Academy of Management Journal*, 51: 1150-1170.

- Bascle, G. 2008. Controlling for endogeneity with instrumental variables in strategic management research. *Strategic Organization*, 6: 285–327.
- Basdeo, D., Smith, K. G., Grimm, C., Rindova, V. P., & Derfus, P. 2006. The impact of market actions on firm reputation. *Strategic Management Journal*, 27: 1205–1219.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. 2001. Bad is stronger than good. *Review of General Psychology*, 5: 323–370.
- Beamish, P. W., & Bapuji, H. 2008. Toys recalls and China: Emotions vs. evidence. *Management and Organization Review*, 4: 197–209.
- Benoit, W. L. 1995. *Accounts, excuses, and apologies: A theory of image restoration strategies*. Albany: State University of New York Press.
- Brief, A. P., & Motowidlo, S. J. 1986. Prosocial organizational behaviors. *Academy of Management Review*, 11: 710–725.
- Bromiley, P., & Marcus, A. 1989. The deterrent to dubious corporate-behavior—Profitability, probability and safety recalls. *Strategic Management Journal*, 10: 233–250.
- Brown, L. 2001. A temporal analysis of earnings surprises: Profits versus losses. *Journal of Accounting Research*, 39: 221–241.
- Burgoon, M., Denning, V. P., & Roberts, L. 2002. Language expectancy theory. In J. P. Dillard & M. Pfau (Eds.), *The persuasion book: Developments in theory and practice*: 117–136. Thousand Oaks, CA: Sage.
- Business Wire. 2001. *Hasbro's new G.I. Joe collection commemorates 60th anniversary of attack on Pearl Harbor* (May 22, Pawtucket, RI). Accessed July 14, 2011.
- Business Wire. 2001. *Hey kids—Come out and play at the Hasbro/FAO Schwarz Play-a-Thon; children to raise money for the charity of their choice by doing what they do best—playing!* (October 19, New York). Accessed July 14, 2011.
- Business Wire. 2003. *Greg Proops from the improv television series "Whose Line is It Anyway?" hosts "How Looney Can You Be?" competition at Toys R Us Times Square* (October 24, New York). Accessed July 14, 2011.
- Business Wire. 2006. *Action products brings I DIG(TM) Dinosaurs to elementary school classrooms; national program introduces premier excavation line to estimated 1.6m students & families* (October 5, Orlando). Accessed July 14, 2011.
- Business Wire. 2007. *RC2 reports 2007 second quarter operating results; revises 2007 outlook* (August 1, Oak Brook, IL). Accessed July 14, 2011.
- Cacioppo, J. T., & Gardner, W. L. 1999. Emotion. In J. T. Spence (Ed.), *Annual review of psychology*, vol. 50: 191–214. Palo Alto, CA: Annual Reviews.
- Carroll, C. E. 2009. The relationship between firms' media favorability and public esteem. *Public Relations Journal*, 3(4): 1–32.
- Carroll, C. E., & McCombs, M. 2003. Agenda-setting effects of business news on the public's images and opinions about major corporations. *Corporate Reputation Review*, 6: 36–46.
- Chaiken, S., Liberman, A., & Eagley, A. H. 1989. Heuristic and systematic information processing within and beyond the persuasion context. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought*: 212–252. New York: Guilford.
- Chatterjee, S., & Price, B. 1991. *Regression analysis by example* (2nd ed.). New York: Wiley.
- Chen, C. C., & Meindl, J. R. 1991. The construction of leadership images in the popular press: The case of Donald Burr and People Express. *Administrative Science Quarterly*, 36: 521–551.
- Coombs, W. T. 1995. Choosing the right words: The development of guidelines for the selection of the "appropriate" crisis-response strategies. *Management Communication Quarterly*, 8: 447–476.
- Coombs, W. T. 2007. Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. *Corporate Reputation Review*, 10: 163–176.
- Darr, E. D., Argote, L., & Epple, D. 1995. The acquisition, transfer, and depreciation of knowledge in service organizations: Productivity in franchises. *Management Science*, 41: 1750–1762.
- Deephouse, D. L. 2000. Media reputation as a strategic resource: An integration of mass communication and resource-based theories. *Journal of Management*, 26: 1091–1112.
- Deephouse, D. L., & Carter, S. M. 2005. An examination of differences between organizational legitimacy and organizational reputation. *Journal of Management Studies*, 42: 329–360.
- Deephouse, D. L., & Heugens, P. P. M. A. R. 2009. Linking social issues to organizational impact: The role of infomediaries and the infomediary process. *Journal of Business Ethics*, 86: 541–553.
- Desai, V. M. 2011. Mass media and massive failures: Determining organizational efforts to defend field legitimacy following crises. *Academy of Management Journal*, 54: 263–278.
- Dukerich, J. M., & Carter, S. M. 2000. Distorted images and reputation repair. In M. Schultz, M. J. Hatch, & M. H. Larsen (Eds.), *Expressive organization: Linking identity, reputation and the corporate brand*: 97–112. Oxford, U.K.: Oxford University Press.

- Duriau, V. J., Reger, R. K., & Pfarrer, M. D. 2007. A content analysis of the content analysis literature in organization studies: Research themes, data sources, and methodological refinements. *Organizational Research Methods*, 10: 5–34.
- Einwiller, S. A., Carroll, C. E., & Korn, K. 2010. Under what conditions do the news media influence corporate reputation? The roles of media dependency and need for orientation. *Corporate Reputation Review*, 12: 299–315.
- Elsbach, K. D. 1994. Managing organizational legitimacy in the California cattle industry: The construction and effectiveness of verbal accounts. *Administrative Science Quarterly*, 39: 57–88.
- Elsbach, K. D. 2003. Organizational perception management. In B. M. Staw & R. I. Sutton (Eds.), *Research in organizational behavior*, vol. 25: 297–332. Greenwich, CT: JAI.
- Elsbach, K. D., & Kramer, R. M. 1996. Members' responses to organizational identity threats: Encountering and countering the business week rankings. *Administrative Science Quarterly*, 41: 442–476.
- Elsbach, K. D., & Sutton, R. I. 1992. Acquiring organizational legitimacy through illegitimate actions—A marriage of institutional and impression management theories. *Academy of Management Journal*, 35: 699–738.
- Elsbach, K. D., Sutton, R. I., & Principe, K. E. 1998. Averting expected challenges through anticipatory impression management: A study of hospital billing. *Organization Science*, 9: 68–86.
- Entman, R. M. 2007. Framing bias: Media in the distribution of power. *Journal of Communication*, 57: 163–173.
- Epstein, S. 1994. Integration of the cognitive and the psychodynamic unconscious. *American Psychologist*, 49: 709–724.
- Festinger, L. 1957. *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fiske, S. T., & Taylor, S. E. 2008. *Social cognition: From brains to culture*. New York: McGraw-Hill.
- Floyd, K., Ramirez, A., Jr., & Burgoon, J. K. 1999. Expectancy violations theory. In L. K. Guerrero, J. A. DeVito, & M. L. Hecht (Eds.), *The nonverbal communication reader: Classic and contemporary readings* (2nd ed.): 437–444. Prospect Heights, IL: Wakeland.
- Fombrun, C. J. 1996. *Reputation: Realizing value from the corporate image*. Boston: Harvard Business School Press.
- Fombrun, C. J., & Shanley, M. 1990. What's in a name? Reputation building and corporate strategy. *Academy of Management Journal*, 33: 233–256.
- Forgas, J. P. 1995. Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin*, 117: 39–66.
- Freedman, S., Kearney, M., & Lederman, M. 2012. Product recalls, imperfect information, and spillover effects: Lessons from the consumer response to the 2007 toy recalls. *Review of Economics and Statistics*, 94: 499–516.
- Godfrey, P. C., Merrill, C. B., & Hansen, J. M. 2009. Institutional stakeholders and the insurance value of CSR: The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. *Strategic Management Journal*, 30: 425–445.
- Greifeneder, R., Bless, H., & Pham, M. T. 2011. When do people rely on affective and cognitive feelings in judgment? A review. *Personality and Social Psychology Review*, 15: 107–141.
- Greve, H. R., Palmer, D., & Pozner, J. E. 2010. Organizations gone wild: The causes, processes, and consequences of organizational misconduct. In J. P. Walsh & A. P. Brief (Eds.), *Academy of Management annuals*, vol. 4: 53–107. Essex, U.K.: Routledge.
- Halaby, C. N. 2004. Panel models in sociological research: Theory into practice. In K. Cook & J. Hagan (Eds.), *Annual review of sociology*, vol. 30: 507–544. Palo Alto, CA: Annual Reviews.
- Hamilton, B. H., & Nickerson, J. A. 2003. Correcting for endogeneity in strategic management research. *Strategic Organization*, 1: 51–78.
- Hannan, T., & Freeman, J. 1984. Structural inertia and organizational change. *American Sociological Review*, 49: 149–164.
- Hastie, R., & Dawes, R. M. 2001. *Rational choice in an uncertain world. The psychology of judgment and decision making*. Thousand Oaks, CA: Sage.
- Hoetker, G. 2007. The use of logit and probit models in strategic management research: Critical issues. *Strategic Management Journal*, 28: 331–343.
- Houser, D., & Wooders, J. 2006. Reputation in auctions: Theory, and evidence from eBay. *Journal of Economics and Management Strategy*, 15: 353–369.
- Janis, I. L., & Fadner, R. H. 1943. A coefficient of imbalance for content analysis. *Psychometrika*, 8: 105–119.
- Jensen, M. 2006. Should we stay or should we go? Accountability, status anxiety, and client defections. *Administrative Science Quarterly*, 51: 97–128.
- Jin, Y., & Liu, B. F. 2010. The blog-mediated crisis communication model: Recommendations for responding to influential external blogs. *Journal of Public Relations Research*, 22: 429–455.
- Johnson, M. E. 2001. Learning from toys: Lessons in

- managing supply chain risk from the toy industry. *California Management Review*, 43(3): 106–124.
- Jones, E. E., & McGillis, D. 1976. Correspondent inferences and the attribution cube: A comparative reappraisal. In J. H. Ickes & R. F. Kidd (Eds.), *New directions in attribution research*, vol. 1: 389–420. Hillsdale, NJ: Erlbaum.
- Jonsson, S., Greve, H. R., & Fujiwara-Greve, T. 2009. Undeserved loss: The spread of legitimacy loss to innocent organizations in response to reported corporate deviance. *Administrative Science Quarterly*, 54: 195–228.
- Kang, E. 2008. Director interlocks and spillover effects of reputational penalties from financial reporting fraud. *Academy of Management Journal*, 51: 537–555.
- Kennedy, M. T. 2008. Getting counted: Markets, media, and reality. *American Sociological Review*, 73: 270–295.
- Kirsch, D., Goldfarb, B., & Gera, A. 2009. Form or substance: The role of business plans in venture capital decision making. *Strategic Management Journal*, 30: 487–515.
- Kostova, T., & Zaheer, S. 1999. Organizational legitimacy under conditions of complexity: The case of the multinational enterprise. *Academy of Management Review*, 24: 64–81.
- Krippendorff, K. 2004. *Content analysis: An introduction to its methodology* (2nd ed.). Thousand Oaks, CA: Sage.
- Krishnan, R., Martin, X., & Noorderhaven, N. G. 2006. When does trust matter to alliance performance? *Academy of Management Journal*, 49: 894–917.
- Lamertz, K., & Baum, J. A. C. 1998. The legitimacy of organizational downsizing in Canada: An analysis of explanatory media accounts. *Canadian Journal of Administrative Sciences*, 15: 93–107.
- Lange, D., Lee, P. M., & Dai, Y. 2011. Organizational reputation: A review. *Journal of Management*, 37: 153–184.
- Lingle, J. H., Geva, N., Ostrom, T. M., Leippe, M. R., & Baumgardner, M. H. 1979. Thematic effects of person judgments on impression organization. *Journal of Personality and Social Psychology*, 37: 674–687.
- Love, E. G., & Kraatz, M. 2009. Character, conformity, or the bottom line? How and why downsizing affected corporate reputation. *Academy of Management Journal*, 52: 314–335.
- Luo, Y. 2008. A strategic analysis of product recalls: The role of moral degradation and organizational control. *Management and Organization Review*, 4: 183–196.
- Lyon, T. P., & Maxwell, J. W. 2011. Greenwash: Corporate environmental disclosure under threat of audit. *Journal of Economics and Management Strategy*, 20: 3–41.
- Marcus, A. A., & Goodman, R. S. 1991. Victims and shareholders: The dilemmas of presenting corporate policy during a crisis. *Academy of Management Journal*, 14: 281–305.
- Martins, L. L. 2005. A model of the effects of reputational rankings on organizational change. *Organization Science*, 16: 701–720.
- McCarthy, J. D., McPhail, C., & Smith, J. 1996. Images of protest: Dimensions of selection bias in media coverage of Washington demonstrations, 1982 and 1991. *American Sociological Review*, 61: 478–499.
- McCombs, M. E. 1981. The agenda setting approach. In D. Nimmo & K. R. Sanders (Eds.), *Handbook of political communication*: 121–140. Newbury Park, CA: Sage.
- McCombs, M., Llamas, J. P., Lopez-Escobar, E., & Rey, F. 1997. Candidate images in special elections: Second-level agenda setting effects. *Journalism and Mass Communication Quarterly*, 74: 703–717.
- McCombs, M., & Shaw, D. 1972. The agenda-setting function of mass media. *Public Opinion Quarterly*, 36: 176–187.
- Mercer, M. 2005. The fleeting effects of disclosure forthcomingness on management's reporting credibility. *Accounting Review*, 80: 723–744.
- Mesquita, L. F., & Brush, T. H. 2008. Untangling safeguard and production coordination effects in long-term buyer-supplier relationships. *Academy of Management Journal*, 51: 785–807.
- Mishina, Y., Block, E. S., & Mannor, M. J. 2012. The path dependence of organizational reputation: How social judgment influences assessments of capability and character. *Strategic Management Journal*, 33: 459–477.
- Mishina, Y., Dykes, B. J., Block, E. S., & Pollock, T. G. 2010. Why “good” firms do bad things: The effects of high aspirations, high expectations, and prominence on the incidence of corporate illegality. *Academy of Management Journal*, 53: 701–722.
- Morrison, E. W., & Robinson, S. L. 1997. When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review*, 22: 226–256.
- Near, J. P., Rehg, M. T., Van Scotter, J. R., & Miceli, M. P. 2004. Does type of wrongdoing affect the whistleblowing process? *Business Ethics Quarterly*, 14: 219–242.
- Parducci, A. 1968. The relativism of absolute judgments. *Scientific American*, 219: 84–90.

- Pennebaker, J. W., Booth, R. J., & Francis, M. E. 2007. *Linguistic inquiry and word count (LIWC): A computerized text analysis program*. Austin, TX: LIWC.net.
- Pew Research Center. 2008. www.pewresearch.org.
- Pezzo, S. P., Pezzo, M. V., & Stone, E. R. 2006. The social implications of planning: How public predictions bias future plans. *Journal of Experimental Social Psychology*, 42: 221–227.
- Pfarrer, M. D., DeCelles, K. A., Smith, K. G., & Taylor, M. S. 2008. After the fall: Reintegrating the corrupt organization. *Academy of Management Review*, 33: 730–749.
- Pfarrer, M. D., Pollock, T. G., & Rindova, V. P. 2010. A tale of two assets: The effects of firm reputation and earnings surprises on investors' reactions. *Academy of Management Journal*, 53: 1131–1152.
- Pfarrer, M. D., Smith, K. G., Bartol, K. M., Khanin, D. M., & Zhang, X. 2008. Coming forward: The effects of social and regulatory forces on the voluntary restatement of earnings subsequent to wrongdoing. *Organization Science*, 19: 386–403.
- Planalp, S., & Fitness, J. 1999. Thinking/feeling about social and personal relationships. *Journal of Social and Personal Relationships*, 16: 731–750.
- Pollock, T. G., & Rindova, V. P. 2003. Media legitimization effects in the market for initial public offerings. *Academy of Management Journal*, 46: 631–642.
- Pollock, T. G., Rindova, V. P., & Maggitti, P. G. 2008. Market watch: Information and availability cascades among the media and investors in the US IPO market. *Academy of Management Journal*, 51: 335–358.
- Porac, J. F., & Thomas, H. 1990. Taxonomic mental models in competitor definition. *Academy of Management Review*, 15: 224–240.
- PR Newswire. 2002. *Independent monitoring council completes audits of Mattel manufacturing facilities in Indonesia, Malaysia and Thailand* (November 15, New York). Accessed July 14, 2011.
- PR Newswire. 2006. *Leapfrog recalls to repair children's activity centers due to arm entrapment hazard* (September 7, Washington DC). Accessed July 14, 2011.
- Range, L. M., Menyhert, A., Walsh, M. L., Hardin, K. N., Ellis, J. B., & Craddick, R. 1991. Letters of recommendation: Perspectives, recommendations, and ethics. *Professional Psychology: Research and Practice*, 22: 389–392.
- Rao, H. 1994. The social construction of reputation: Certification contests, legitimation, and the survival of organizations in the American automobile industry: 1895–1912. *Strategic Management Journal*, 15: 29–44.
- Reger, R. K., & Palmer, T. B. 1996. Managerial categorization of competitors: Using old maps to navigate new environments. *Organization Science*, 7: 22–39.
- Rhee, M., & Haunschild, P. R. 2006. The liability of good reputation: A study of product recalls in the U.S. automobile industry. *Organization Science*, 17: 101–117.
- Richey, M. H., Koenigs, R. J., Richey, H. W., & Fortin, R. 1975. Negative salience in impressions of character: Effects of unequal proportions of positive and negative information. *Journal of Social Psychology*, 97: 233–241.
- Rindova, V. P., Pollock, T. G., & Hayward, M. L. A. 2006. Celebrity firms: The social construction of market popularity. *Academy of Management Review*, 31: 50–71.
- Rogers, E. M., Dearing, J. W., & Bregman, D. 1993. The anatomy of agenda-setting research. *Journal of Communication*, 43: 68–84.
- Salancik, G. R., & Meindl, J. R. 1984. Corporate attributions as strategic illusions of management control. *Administrative Science Quarterly*, 29: 238–254.
- Scheufele, D. A. 1999. Framing as a theory of media effects. *Journal of Communication*, 49: 103–122.
- Scott, W. R. 1995. *Institutions and organizations*. Thousand Oaks, CA: Sage.
- Scott, W. R. 2003. *Organizations: Rational, natural, and open systems*. Upper Saddle River, NJ: Prentice Hall.
- Semadeni, M., Cannella, A. A., Fraser, D. R., & Lee, D. S. 2008. Fight or flight: Managing stigma in executive careers. *Strategic Management Journal*, 29: 557–567.
- Short, J. C., Broberg, J. C., Coglisier, C. C., & Brigham, K. H. 2010. Construct validation using computer-aided text analysis (CATA): An illustration using entrepreneurial orientation. *Organizational Research Methods*, 13: 320–347.
- Siskind, G. 1966. Mine eyes have seen a host of angels. *American Psychologist*, 21: 804–806.
- Skinner, D., & Sloan, R. 2002. Earnings surprises, growth expectations, and stock returns or don't let an earnings torpedo sink your portfolio. *Review of Accounting Studies*, 7: 289–312.
- Skowronski, J. J., & Carlston, D. E. 1989. Negativity and extremity biases in impression formation: A review of explanations. *Psychological Bulletin*, 105: 131–142.
- Skowronski, J., & Carlston, D. 1987. Social judgment and social memory: The role of cue diagnosticity in negativity, positivity, and extremity biases. *Journal of Personality and Social Psychology*, 52: 689–699.

- Smith, K. G., Grimm, C., Gannon, M., & Chen, M. J. 1991. Organizational information processing, competitive responses and performance in the U.S. domestic airline industry. *Academy of Management Journal*, 34: 60–85.
- Suchman, M. C. 1995. Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20: 571–610.
- Sullivan, B. N., Haunschild, P., & Page, K. 2007. Organizations non gratae? The impact of unethical corporate acts on interorganizational networks. *Organization Science*, 18: 55–70.
- Sutton, R. I., & Galunic, D. C. 1996. Consequences of public scrutiny for leaders and their organizations. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior*, vol. 18: 201–250. Greenwich, CT: JAI Press.
- Taylor, S. E. 1991. Asymmetrical effects of positive and negative events: The mobilization-minimization hypothesis. *Psychological Bulletin*, 110: 67–85.
- Tetlock, P. C., Saar-Tsechansky, M., & Macskassy, S. 2008. More than words: Quantifying language to measure firms' fundamentals. *Journal of Finance*, 63: 1437–1467.
- Thompson, J. D. 1967. *Organizations in action: Social science bases of administration theory*. New York: McGraw-Hill.
- Tong, T. W., Reuer, J. J., & Peng, M. W. 2008. International joint ventures and the value of growth options. *Academy of Management Journal*, 51: 1014–1029.
- Wade, J. B., Porac, J. F., Pollock, T. G., & Graffin, S. D. 2006. The burden of celebrity: The impact of CEO certification contests on CEO pay and performance. *Academy of Management Journal*, 49: 643–660.
- Wartick, S. L. 1992. The relationship between intense media exposure and change in corporate reputation. *Business and Society*, 31(April): 33–49.
- Westphal, J. D., & Bednar, M. K. 2008. The pacification of institutional investors. *Administrative Science Quarterly*, 53: 29–72.
- Westphal, J. D., & Deephouse, D. L. 2011. Avoiding bad press: Interpersonal influence in relations between CEOs and journalists and the consequences for press reporting about firms and their leadership. *Organization Science*, 22: 1061–1086.
- Westphal, J. D., & Zajac, E. J. 1998. The symbolic management of stockholders: Corporate governance reforms and shareholder reactions. *Administrative Science Quarterly*, 43: 127–153.
- Yu, T., Sengul, M., & Lester, R. H. 2008. Misery loves company: The spread of negative impacts resulting from an organizational crisis. *Academy of Management Review*, 33: 452–472.
- Zuckerman, E. W. 1999. The categorical imperative: Securities analysts and the illegitimacy discount. *American Journal of Sociology*, 104: 1398–1438.
- Zyglidopoulos, S. C. 2001. The impact of accidents on firms' reputation for social performance. *Business and Society*, 40: 416–441.



Anastasiya Zavyalova (anastasiya.zavyalova@rice.edu) is an assistant professor in the Jones Graduate School of Business at Rice University. She received her Ph.D. from the University of Maryland. Her research focuses on the processes through which firms damage and restore social approval assets, such as reputation and celebrity. She is specifically interested in the role of media in influencing social perceptions about firms in light of negative disruptive events.

Michael D. Pfarrer (mpfarrer@uga.edu) is an assistant professor in the Terry College of Business at the University of Georgia. He received his Ph.D. from the University of Maryland. His research focuses on external perceptions of firm behavior and how firms manage these interpretations to create value. His specific interests include positive and negative social evaluations (e.g., firm celebrity, legitimacy, reputation, and stigma), impression and crisis management, media accounts, corporate governance, and the role of business in society.

Rhonda K. Reger (rreger@rhsmith.umd.edu) is an associate professor of strategic management and entrepreneurship at the University of Maryland, College Park. (Prof. Reger will join the University of Tennessee faculty in January 2013.) She received her Ph.D. in strategic management from the University of Illinois at Urbana-Champaign. Her current research interests include cognitive approaches to competitive and reputation dynamics, organizational identity, and nonmarket strategies.

Debra L. Shapiro (dshapiro@rhsmith.umd.edu) is the Clarice Smith Professor of Management at the University of Maryland, formerly the Willard J. Graham Distinguished Professor of Management at UNC-Chapel Hill. She earned her Ph.D. in organization behavior from the J.L. Kellogg Graduate School of Management at Northwestern University. Her research centers on how to manage conflict, including change resistance and perceived injustice, in organizations.

