MICHELLE L. ROEHM and ALICE M. TYBOUT*

Three experiments identify conditions under which a brand scandal spills over and negatively affects attitudes and beliefs about the product category and about competing brands. The research also examines factors that may enhance or reduce the likelihood of spillover effects and strategies for responding to scandal spillover.

When Will a Brand Scandal Spill Over, and How Should Competitors Respond?

There has been growing interest in the concept of "spillover," which refers to the phenomenon in which information influences beliefs that are not directly addressed in a communication (Ahluwalia, Unnava, and Burnkrant 2001). Research has documented spillover from one attribute to another of the same brand (Ahluwalia, Unnava, and Burnkrant 2001) and from one product to another within a brand family (e.g., Balachander and Ghose 2003; John, Loken, and Joiner 1998).

Our research extends prior work by examining the spillover of a brand scandal within a product category. On the one hand, competitors of the scandalized brand might be considered guilty by association. Consistent with this view, trust ratings for energy and telecommunications companies dropped after the Enron and WorldCom scandals. On the other hand, a scandal might be interpreted as unique to the scandalized brand, causing the damage to be isolated and, perhaps, even benefiting competitors. This could explain a rise in sales for Goodyear and Michelin tires after the Firestone tire scandal. We propose a framework for anticipating when a scandal is likely to spill over within a product category and how competitors of the scandalized brand should respond.

SCANDAL SPILLOVER

Spillover effects have been explained in terms of Feldman and Lynch's (1988) accessibility–diagnosticity framework. Accessibility is construed in terms of spreading activation theory, in which concepts, such as brands, their product attributes, and categories to which they belong, reside in a network and can activate one another when the links between them are strong (Anderson 1983; Collins and Loftus 1975). Diagnosticity is a function of consumers' implicit theories about how things relate in the world (Broniarczyk and Alba 1994a, b).

Thus, the accessibility–diagnosticity perspective would suggest that if Brand A is perceived as being informative about (diagnostic for) Brand B, observations about Brand A will be inferred to apply to Brand B, provided that Brand A, Brand B, and the observations are all activated at the same time. Extending this logic to a scandal context, we predict that spillover to a product category will occur when the category (e.g., fast-food restaurants) is accessed as a member brand's (e.g., Burger King) scandal information is processed and when the scandal (a problem with hamburger meat) is intuitively viewed as applicable to the category in general. Similarly, spillover to a competitor (e.g., Wendy's) should be more likely when the competitor is accessible as the scandal is encountered and when the scandal is perceived as diagnostic for other competing brands. In contrast, when either joint access is not achieved or the scandal is not perceived as diagnostic for the category (competitor), spillover is unlikely. The argument that scandal spillover is moderated by both accessibility and diagnosticity is supported by findings that spillover is especially likely for negative information, which is considered more diagnostic than positive information; for attributes that are highly correlated with (strongly linked to) an attribute that is the target of negative publicity; and for products within a brand family that are strongly associated with a poorly performing member of the family (Ahluwalia, Burnkrant, and Unnava 2000; Ahluwalia and Gurhan-Canli 2000).

Specific predictions about when scandal spillover is likely to occur require consideration of factors that may affect the information that is accessible and whether such information is perceived as diagnostic. Accessibility is promoted by strong associative linkages, and brands that are typical members of a category are strongly associated with

*Michelle L. Roehm is Associate Professor of Marketing, Babcock Graduate School of Management, Wake Forest University (e-mail: Michelle.Roehm@mba.wfu.edu). Alice M. Tybout is Harold T. Martin Professor of Marketing, Kellogg School of Management, Northwestern University (e-mail: amtybout@kellogg.northwestern.edu). The authors thank Sue Jung Grant; Brian Sternthal; faculty and students who participated in seminars at University of California, Berkeley, University of California, Los Angeles, and The Ohio State University; and the participants at the 2002 Association for Consumer Research meeting for their many helpful comments and suggestions. Funding for this research was provided by the Babcock Graduate School of Management Faculty Research Fund.

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that category (Barsalou 1992). Thus, if a scandal pertains to a typical brand in a category, the product category is likely to be activated when the scandal is processed. Moreover, because typical category members are, by definition, good representatives of a category, new information about their behavior may be intuitively viewed as diagnostic about the category in general (Barsalou 1985). It follows that a scandal about a typical brand may easily meet the burdens of accessibility and perceived diagnosticity and spill over to the category.

Similarly, if a scandal pertains to an attribute that is closely associated with membership in a category (e.g., hamburgers as a menu item in the fast-food restaurant category), accessing the attribute may activate the category. Furthermore, the strong association between the attribute and the category may imply that the scandal behavior associated with that attribute is common practice within the category or, in other words, that the scandal is diagnostic for the category.

In contrast, when a category and a scandalized company or scandal attribute have weak prior linkages, the category is unlikely to be activated as the scandal is processed, and the scandal may not be perceived as diagnostic. Therefore, spillover is unlikely. Thus:

H_1: A scandal is (un)likely to spill over and influence beliefs about a product category when the scandalized company is (not) typical of the category and (or) the scandal pertains (does not pertain) to an attribute that is strongly associated with the category.

Direct competitors are likely to be strongly linked with one another in memory because of frequent juxtaposition during the purchase process. Thus, the accessing of a scandalized brand may also activate close competitors. However, whether a scandal spills over to a competitor should also depend on perceived diagnosticity, which in turn may be related to the nature of the similarity between brands. Research by Broniarczyk and Alba (1994a) indicates that inferences about diagnosticity rely more on attribute-level similarities than on overall, global similarity perceptions. Thus, we predict that overall similarity will not be sufficient for spillover to occur. Rather, spillover will be determined by perceived similarity on the scandal attribute.

H_2: Spillover to a competing brand is (un)likely to occur when a scandalized brand is (not) similar to the competitor on the scandal attribute.

Context may influence consumers' salient intuitive theories about the diagnosticity of a scandal. For example, when contextual cues, such as advertising, prime consumers to think about how brands differ, consumers may reason that the scandal behavior is a negative by-product of one brand's unique efforts to gain an advantage or set itself apart from competing brands. As a result, a scandal may be viewed as nondiagnostic for a category (competitor), even if the category (competitor) is accessible, and the effect of the scandal will be isolated. In contrast, when contextual cues prompt consumers to think about both attributes that are shared with other category members and those that differentiate a brand (i.e., relational processing), consumers may infer that the scandal behavior is an attribute shared by other brands in the category. If so, the spillover effects outlined in H_1 and H_2 are likely to emerge.

H_3: When consumers are primed to think about differentiation (relationships) among brands, a brand scandal will (not) be isolated, and spillover effects are unlikely (likely).

RESPONDING TO SCANDAL SPILLOVER

When a brand is implicated in a scandal, other brands in the same category may consider issuing denials of the scandal behavior to protect themselves against potential spillover effects. Managers of competing brands may reason that making information that is diagnostic for judging their brands readily accessible will reduce consumers' motivation to make inferences based on information about the scandalized brand (Feldman and Lynch 1988). However, the literature on communication norms suggests that denials can also have undesirable results.

An informativeness principle—a norm that communication should convey information that the recipient does not have (Clark 1985)—guides the interpretation of news stories (e.g., Iyengar and Kinder 1987; Vallone, Ross, and Lepper 1985). Stories that include novel information are informative and are interpreted literally. However, stories that contain assertions or denials that are redundant with current beliefs are not literally informative. As a result, such stories have been found to prompt pragmatic inferences that the opposite may actually be true, thus undermining the very beliefs that were literally stated (Gruenfeld and Wyer 1992). This so-called boomerang effect implies that the wisdom of denying a scandal depends on whether the target audience already believes that the brand engages in the scandal behavior.

Thus, our final hypothesis is that the effectiveness of issuing a denial is determined by whether scandal spillover has occurred. If spillover has occurred, issuing a denial will be an effective strategy because it will be literally informative. The denial will engage a correction process in which consumers adjust their perceptions by removing the possible effect of the scandal on their beliefs about the brand, and evaluations of the brand will become more favorable (see Moskowitz and Skurnik 1999; Schwarz and Bless 1992). However, issuing a denial in the absence of spillover will create a boomerang effect. Consumers will pragmatically reason that the denial implies possible guilt, and attitudes and beliefs will become less favorable.

H_4: When scandal spillover is (un)likely, attitudes toward and beliefs about a competing brand will be more (less) favorable when a denial is presented than when it is not.

We present three studies. In Experiment 1, we examine conditions under which a scandal does or does not spill over to a category and to a competitor. In Experiment 2, we document different reactions to denials in situations in which scandal spillover is or is not likely to occur. Experiment 3 replicates and extends the results from the first two studies, employing different stimuli to demonstrate robustness and a more intricate methodology that allows us to trace the processes proposed to underlie boomerang and spillover correction effects.

EXPERIMENT 1

Development of Stimulus Materials

A pretest indicated that fast food would be an interesting and familiar product context for the 81 MBA students who

participated in the study. Another pretest revealed that two commonly recognized categories of fast-food restaurants are "traditional fast food" (McDonald's, Burger King, Wendy's) and those that specialize in charbroiling and desserts (Dairy Queen, A&W). For brevity, we refer to these groups as the traditional fast food (TFF) and dessert categories. Scandals judged as equal in severity were created around attributes that were strongly associated with the TFF (a problem with hamburger meat) and dessert (serving tainted ice cream) categories.

Burger King (BK) and Dairy Queen (DQ), which were associated in pretests with the TFF category and the dessert category, respectively, served as scandalized firms. A pretest also indicated that BK (DQ) is typical of the TFF (dessert) category but atypical of the dessert (TFF) category and that Hardee's is typical of both categories ($M_{BK, TFF}$ = 9.82, $M_{BK, dessert}$ = 4.58, $p < .01$; $M_{DQ, TFF}$ = 4.88, $M_{DQ, dessert}$ = 9.58, $p < .01$; $M_{Hardee's, TFF}$ = 8.44, $M_{Hardee's, dessert}$ = 8.71, $p > .10$; as is the case throughout our studies, 11-point scales were used, with higher scores indicating more of a specified dimension). Thus, Hardee's should be a competitor to which a scandal related to either category might spill over. Further testing indicated that Hardee's is viewed as highly similar to both BK (M = 8.53) and DQ (M = 9.00) overall and that Hardee's, BK (DQ), and the TFF (dessert) category share a strong link with hamburgers (ice cream). Thus, Hardee's is similar to BK (DQ) on the hamburger (ice cream) scandal attribute.

Method

In the first of two study sessions, we assessed benchmark measures for spillover to either the TFF or the dessert category using the items "Misleading customers about the nutrition content of their burgers is typical/common among [category] companies" and "Serving tainted ice cream dishes is typical/common among [category] companies." Then, we measured attitudes toward Hardee's ("How good a corporate citizen is Hardee's?" "How much do you like Hardee's?" and "How positive do you feel about Hardee's?") and specific beliefs about Hardee's ("At times, Hardee's misleads customers about the nutrition content of its burgers/serves tainted ice cream," "Hardee's sometimes misleads customers about the nutrition content of its burgers/serves tainted ice cream," and "Hardee's occasionally misleads customers about the nutrition content of its burgers/serves tainted ice cream").

In a second study session, all respondents viewed a print advertisement for McDonald's to prompt thinking about relationships among fast-food brands. We interspersed attributes shared with other fast-food restaurants with ones that are unique to McDonald's in a manner that research (Sujan and Bettman 1989) suggests cues consideration of relationships.

Participants then read an alleged news story in which either BK or DQ was described as either misleading consumers about the nutritional content of its burgers or serving tainted ice cream. Next, participants expressed beliefs about the extent to which members of either the TFF or the dessert category engage in such behaviors, using the same scales as in the first study session. We then measured Hardee's attitudes and beliefs in a manner identical to the benchmark questionnaire. Finally, participants reported gender, age, and familiarity with fast-food brands.

The experiment employed a 2 (scandalized brand: BK, DQ) × 2 (scandal: hamburger, ice cream) × 2 (category beliefs measured: TFF, dessert category) between-subjects factorial design. We randomly assigned participants to treatments and fully debriefed them at the end of the study.

According to H_1, a scandal is (un)likely to spill over and affect beliefs about a product category when the scandalized brand is (not) a typical category member and (or) the scandal pertains (does not pertain) to an attribute that is strongly associated with the category. Thus, when BK (DQ) is the scandalized company and the scandal involves hamburgers (ice cream), spillover to beliefs about the TFF (dessert) category should be observed. In other cases, spillover is unlikely.

H_2 predicts that a scandal is (un)likely to spill over to a competing brand when it pertains (does not pertain) to an attribute on which the scandalized brand and competitor are similar. Thus, when BK (DQ) is the scandalized company and the scandal is related to hamburgers (ice cream), spillover should be observed for attitudes toward and beliefs about Hardee's. Otherwise, spillover to Hardee's is unlikely, despite the overall similarity of Hardee's to both BK and DQ.

Results

Respondents' ratings (11-point scale anchored by "very familiar" and "very unfamiliar") of familiarity with fast-food brands served as a covariate in the analysis of Experiment 1 because research suggests that the likelihood of generating category-related inferences can vary with expertise (Alba and Hutchinson 1987; Sujan 1985). We report covariate-adjusted means.

Category beliefs. We averaged category belief items to create initial and postscandal belief scores (r's > .66). We subtracted initial scores from postscandal scores to create change scores. Positive belief change scores indicate spillover; larger numbers suggest more spillover.

An analysis of variance (ANOVA) on the change scores for the three-factor design revealed a main effect for category level measured ($F(1, 72) = 10.46$, $p < .01$) and interactions between scandalized company and category level measured ($F(1, 72) = 1944.55$, $p < .01$), scandal and category level measured ($F(1, 72) = 1583.63$, $p < .01$), and scandalized company and scandal ($F(1, 72) = 2716.89$, $p < .01$). A three-way interaction qualified these effects ($F(1, 72) = 4.12$, $p < .05$).

Follow-up analyses for the three-way interaction examined the effects for respondents who evaluated the TFF and dessert categories separately. We observed an interaction between scandalized company and scandal for the change scores of respondents who rated the TFF category ($F(1, 36) = 826.34$, $p < .01$) and the dessert category ($F(1, 35) = 5836.26$, $p < .01$). As we expected, for the TFF (dessert) category, when BK (DQ) was scandalized and the scandal pertained to hamburgers (ice cream), change scores were large and positive (M_{TFF} = 1.25, $M_{dessert}$ = 1.33), implying spillover. However, when DQ (BK) was the scandalized firm or the scandal involved ice cream (hamburgers), there was little change in beliefs about the TFF (dessert) category after exposure to the scandal information (M_{TFF} = –.15 to .01, $M_{dessert}$ = –.12 to .08).

Attitudes and beliefs about a competitor. We averaged Hardee's attitude and belief items for initial and postscandal scores (αs > .74). We subtracted initial scores from postscandal scores. More negative (positive) attitude (belief) change scores reflect more spillover.

An ANOVA on the attitude change scores for the full three-factor design revealed main effects for scandalized company ($F(1, 72) = 4.44$, $p < .04$) and scandal ($F(1, 72) = 11.04$, $p < .01$), which were qualified by an interaction between scandalized company and scandal ($F(1, 72) = 691.51$, $p < .01$). On the belief index, there was an interaction only between scandalized company and scandal ($F(1, 72) = 263.60$, $p < .01$).

As we anticipated, spillover of the scandal to Hardee's is observed when the scandal is related to an attribute that is shared with the scandalized brand. For the BK hamburger scandal and the DQ ice cream scandal, change scores are sizable and in the expected directions ($M_{BK\ attitudes} = -1.64$, $M_{BK\ beliefs} = 1.24$; $M_{DQ\ attitudes} = -1.31$, $M_{DQ\ beliefs} = 1.23$), indicating substantial spillover. However, change scores for the BK ice cream and DQ hamburger scandals are small, suggesting little spillover ($M_{BK\ attitudes} = .07$, $M_{BK\ beliefs} = .26$; $M_{DQ\ attitudes} = .06$, $M_{DQ\ beliefs} = .11$).

Discussion

The findings reveal that a scandal is likely to spill over to a category when the scandal involves a typical brand (BK in the TFF category and DQ in the dessert category) and an attribute (hamburgers for the TFF category and ice cream for the dessert category) that are strongly associated with the category. In the absence of these conditions (DQ or ice cream paired with the TFF category, BK or hamburgers paired with the dessert category), spillover is unlikely. Furthermore, overall similarity is not sufficient for a scandal to spill over to a competing brand. Spillover occurs only when the scandal involves a basis of similarity between the scandalized brand and its competitor. Thus, despite high overall similarity to BK and DQ, the hamburger (ice cream) scandal spilled over to Hardee's when BK (DQ) but not DQ (BK) was scandalized.

EXPERIMENT 2

Scandal spillover might be avoided if contextual cues, such as advertising, prompt consumers to think about how brands in a category are differentiated (H_3). To explore this possibility, we varied the degree to which an advertisement viewed before learning about the scandal highlighted differentiating attributes of a prominent brand in the category. Alternatively, a competitor might use a denial to induce consumers to correct for any spillover that has occurred. To investigate this possibility, we manipulated whether a competitor of the scandalized firm included a denial of the scandal behavior in a subsequent news story (H_4).

Development of Stimulus Materials

Experiment 2 employed the BK hamburger scandal from Experiment 1. To explore the robustness of the spillover effect, Wendy's served as the competing brand. A pretest verified that the BK hamburger scandal would spill over to Wendy's, as it did to Hardee's in Experiment 1.

We varied the layout of the McDonald's advertisement used in Experiment 1 to encourage either thinking about relationships or differentiating among category members. Sujan and Bettman (1989) report that whereas not concentrating differentiating attributes encourages relating the brand to the category, concentrating such attributes encourages setting a brand apart from other members of the category. A pretest confirmed that a not-concentrated (concentrated) version of the McDonald's advertisement primed a focus on relationships (differentiation). In general, fast-food restaurants were viewed as more (less) similar in the concentrated (not concentrated) ad condition ($M_{concentrated} = 6.30$, $M_{not\ concentrated} = 4.40$, $p < .01$), presumably because the isolation (inclusion) of McDonald's reduced (enhanced) the effect of its uniqueness on category beliefs.

The denial manipulation was embedded in a news story about Wendy's. A pretest verified that the denial ("Wendy's has never and will never mislead customers about the nutritional content of any of its menu items") effectively countered beliefs that Wendy's was guilty of the BK hamburger scandal.

Method

Participants were 54 MBA students. They began the study by reading a version of the McDonald's advertisement. Next, they read a story about the BK hamburger scandal. Finally, they read another story, which described a fresh produce program offered by Wendy's and which included the denial manipulation. Attitudes toward and beliefs about Wendy's were reported on the 11-point scales used in Experiment 1 (e.g., "How good a corporate citizen is Wendy's?" "At times, Wendy's misleads customers about the nutrition content of its burgers.").

Thus, the study employed a 2 (ad prime: focus on brand relationships, brand differentiation) × 2 (denial: yes, no) factorial design. We randomly assigned participants to treatments by the questionnaires that they received, and we fully debriefed them after the study.

Drawing on H_3 and H_4, we predicted that when the (not) concentrated advertisement was read, thinking about differentiation (relationships) would be primed, and the scandal would not (would) spill over, even though (because) BK is a typical TFF brand and hamburgers are strongly associated with the TFF category. Thus, issuing a denial should boomerang (invite correction) and result in more negative (positive) evaluation of Wendy's than should no denial.

Results

We averaged the attitude and belief items to form two indexes (αs > .87). The ANOVA revealed an interaction only between prime and denial ($F_{attitudes}(1, 50) = 22.70$, $p < .01$; $F_{beliefs}(1, 50) = 27.36$, $p < .01$). When participants saw the not-concentrated advertisement, their attitudes and beliefs about Wendy's were more favorable in the denial ($M_{attitudes} = 6.31$, $M_{beliefs} = 4.56$) than in the no-denial ($M_{attitudes} = 4.14$, $F_{attitudes}(1, 50) = 10.98$, $p < .01$; $M_{beliefs} = 5.78$, $F_{beliefs}(1, 50) = 5.82$, $p < .02$) condition. When participants saw the concentrated advertisement, their attitudes and beliefs about Wendy's were less favorable in the denial ($M_{attitudes} = 3.69$, $M_{beliefs} = 6.62$) than in the no-denial ($M_{attitudes} = 5.92$, $F_{attitudes}(1, 50) = 11.73$, $p < .01$; $M_{beliefs} = 4.11$, $F_{beliefs}(1, 50) = 24.93$, $p < .01$) condition.

Discussion

The findings support H_3 and H_4. When the not-concentrated advertisement primed thinking about relation-

ships and scandal spillover presumably occurred, issuing a denial was beneficial because it prompted correction. However, when the concentrated advertisement primed attention to brand differentiation and thus reduced the likelihood of scandal spillover, a denial boomeranged. In this situation, the denial was not literally informative and may have led to a pragmatic inference that the denier "doth protest too much" and was guilty. The results of Experiment 2 also imply that predenial measures are not necessary for scandal spillover to occur.

EXPERIMENT 3

Experiment 3 extends the prior studies in several ways. We use a new product category and a different type of scandal, and we substitute a sorting task for the advertising prime used in Experiment 2. In addition, we use a relatively subtle denial and measure attitudes and beliefs related to competing brands before and after the denial story, which allows us to examine the shift on these measures that is assumed to underlie correction and boomerang effects of the denial.

Development of Stimulus Materials

To offer further evidence for the robustness of our spillover effects, we needed a scandal that would be relevant to students' concerns but that, unlike our fast-food scandal, would not affect the quality of the company's products. A pretest indicated that water pollution associated with the manufacture of athletic shoes would serve our purpose.

We chose Nike as the scandalized company. As a market leader, Nike is a highly typical athletic shoe brand. Thus, a pollution scandal involving Nike has the potential to spill over to the category. We selected Reebok and Asics to serve as competing brands. A pretest confirmed that Nike is a highly typical member of the athletic shoe category (M = 10.17) and that Reebok (Asics) is perceived as relatively similar (dissimilar) to Nike in likely water pollution practices ($M_{\text{Nike and Reebok}} = 8.29$, $M_{\text{Nike and Asics}} = 5.64$, $p < .01$).

We used a sorting task to prime different processing styles (see Maurer, Park, and Rothbart 1995). Participants sorted cards that described 15 hypothetical sports magazines into piles with an instruction either to "set aside members that do not fit well with the category" or to "make piles that reflect differences and similarities among the members." A pretest verified that the first (second) instruction focused attention on brand differentiation (relationships), as indicated by higher (lower) ratings of similarity among magazines on three key dimensions (differentiation instruction: $M_{\text{dimension 1}} = 6.82$, $M_{\text{dimension 2}} = 6.85$, $M_{\text{dimension 3}} = 6.07$; relationship instruction: $M_{\text{dimension 1}} = 5.37$, $p < .01$; $M_{\text{dimension 2}} = 5.32$, $p < .01$; $M_{\text{dimension 3}} = 5.00$, $p < .03$). The sorting instructions focused on differentiation (relationships) and allowed (did not encourage) unusual magazines to be set aside, so their uniqueness had less (more) impact on similarity ratings.

We used a subtle denial in Experiment 3. Our goal was to investigate whether the strong wording of the denial used in Experiment 2 created the observed boomerang effect.

Method

Sixty-six respondents began by performing the sorting task, which primed brand differentiation or brand relationships. Afterward, they read a news story about the Nike water pollution scandal. Then, they answered questions that assessed the effect of the scandal on beliefs about the athletic shoe category ("Pollution is typical/common of athletic shoe companies"; again, we used the 11-point scales in this study) and estimated the percentage of athletic shoe firms that pollute.

We measured attitudes toward Nike, Reebok, and Asics ("How good a corporate citizen is [brand]?" "How much do you like [brand]?" and "How much do you have positive feelings about [brand]?") and specific beliefs about Reebok and Asics ("At times, [brand's] manufacturing processes pollute nearby waters," "[Brand] sometimes filters pollution into neighboring waters," and "[Brand] occasionally generates waste that infiltrates local waters"). Next, we obtained similarity ratings on the dimension of water pollution practices using two items: "Reebok (Asics) is more similar/comparable than Asics (Reebok) to Nike."

Following a break to alleviate fatigue, participants read articles about new shoes from Reebok and Asics. In the (no-) denial condition, the last sentence of both the Reebok and the Asics articles (did not deny) subtly denied water pollution (e.g., "Reebok has issued a statement declaring that water pollution will be avoided in the manufacturer of this new product"). Participants rated the two articles on four scales: "informative/not informative," "very enlightening/not enlightening," "relevant/not relevant," and "interesting/not interesting." Then, they reported their attitudes toward the brands in the stories and beliefs about whether the companies pollute using the same scales we administered after the scandal story.

Thus, Experiment 3 used a 2 (sorting task prime: brand relationships, brand differentiation) × 2 (denial: yes, no) between-subjects factorial design. We randomly assigned participants to treatments and fully debriefed them at the end of the study.

Results and Discussion

Manipulation checks. We averaged items that assessed similarity to Nike on water pollution practices (r = .78). An ANOVA revealed only a main effect for prime ($F(1, 62) = 15.86$, $p < .01$). Means indicate that the sorting task varied respondents' sensitivity to relationships between Nike and other brands in the category. When the sorting task focused on brand relationships (differentiation), participants perceived Nike's similarity to Reebok as greater (lower) than its similarity to Asics, presumably because relationships between prominent category members were more (less) salient (M = 7.12 versus 5.27). Thus, the effects parallel those of our ad prime in Experiment 2.

The prime also had an unexpected effect on the scandalized firm. An ANOVA on an index of the items that measured Nike attitudes ($\alpha = .92$) revealed that participants perceived Nike more positively when thinking about relationships (M = 6.34) rather than when differentiation among brands was primed (M = 5.23, $F(1, 62) = 4.42$, $p < .04$). We speculate that when a consumer infers that other brands in the category also engage in the scandal behavior, he or she may reason that evaluations of a scandalized brand should not suffer for a behavior that may be commonplace. As a result, consumers make an effort to correct their attitudes toward the scandalized brand (see Moskowitz

and Skurnik 1999; Schwarz and Bless 1992). A follow-up study supported this view.

Factor analysis of judgments of the Reebok and Asics stories revealed that three items ("informative," "enlightening," and "relevant") loaded together. We averaged them (αs > .86), and an ANOVA revealed only a main effect of denial. The stories seemed more informative with a denial rather than without one (M_{Reebok} = 5.56 versus 3.39, $F_{Reebok}(1, 62) = 13.31$, $p < .01$; M_{Asics} = 5.13 versus 3.41, $F_{Asics}(1, 62) = 9.55$, $p < .01$).

Category beliefs. We averaged items that assessed beliefs about athletic shoe companies (r = .77). An ANOVA revealed only a main effect. As H_3 anticipated, participants considered pollution by athletic shoe companies less likely when the prime focused thinking on differentiation among brands rather than on relationships ($F(1, 62) = 10.07$, $p < .01$). Means appear in Figure 1. When we primed thinking about differentiation, participants estimated a smaller percentage of athletic shoe companies to pollute (38% versus 46%; $F(1, 62) = 3.87$, $p < .05$).

Attitudes and beliefs about competitors. We formed four indexes by averaging items that measured initial attitudes and beliefs for Reebok and Asics (αs > .89). An ANOVA revealed only an effect of the prime on both indexes for Reebok ($F_{attitudes}(1, 62) = 7.92$, $p < .01$; $F_{beliefs}(1, 62) = 3.85$, $p < .05$). Participants evaluated Reebok less positively and perceived it as more likely to pollute when the sorting task primed a focus on relationships rather than on differentiation among brands (for means, see Figure 1). Participants evaluated Asics moderately favorably ($M_{attitudes}$ = 5.65, $M_{beliefs}$ = 5.59) regardless of the prime. Because these findings suggest spillover to Reebok, a brand similar to Nike in water pollution practices but not to Asics, they support H_2. In summary, using a new product category and a new type of scandal, we again find scandal spillover on an attribute that is a basis of similarity for two brands within a category.

Boomerang and spillover correction effects. We averaged the attitude items and pollution belief items that were administered after the Reebok and Asics news stories to form two indexes for each brand (αs > .86). An ANOVA on these indexes revealed an interaction between prime and denial for Reebok ($F_{attitudes}(1, 62) = 27.92$, $p < .01$; $F_{beliefs}(1, 62) = 21.12$, $p < .01$).

The data pattern supports H_4 and demonstrates robustness for the denial effects reported in Experiment 2. When we primed participants to consider relationships (differentiation) among brands, they evaluated Reebok more (less) positively and perceived it as less (more) likely to engage in pollution when the news story included rather than omitted the denial ($F_{relationship\ prime,\ attitudes}(1, 62) = 14.02$, $p < .01$; $F_{relationship\ prime,\ beliefs}(1, 62) = 4.32$, $p < .04$; $F_{differentiation\ prime,\ attitudes}(1, 62) = 9.05$, $p < .01$; $F_{differentiation\ prime,\ beliefs}(1, 62) = 19.53$, $p < .01$; for means, see Figure 1). This is consistent with the correction (boomerang) effects we posit when spillover has (not) occurred.

To explore the processes underlying denial effects, we examined relationships between attitudes and beliefs measured before and after participants read the Reebok news story through correlations and change scores (post- minus predenial scores). The pre- and postdenial measures are correlated in the no-denial condition (r's > .37, ps < .01) but not in the denial condition (ps > .59), suggesting that the denial led participants to alter their attitudes and beliefs. Change scores reveal that when we primed participants to consider relationships (differentiation) among brands, their attitudes toward Reebok were more (less) positive, and their beliefs that Reebok engages in pollution were reduced (increased) after the denial, suggesting a correction (boomerang) process ($M_{relationship\ prime,\ attitudes}$ = .78, $M_{relationship\ prime,\ beliefs}$ = −1.18; $M_{differentiation\ prime,\ attitudes}$ = −2.19, $M_{differentiation\ prime,\ beliefs}$ = 2.58).

There was only a main effect of denial on the Asics attitude and pollution belief indexes ($F_{attitudes}(1, 62) = 12.88$, $p < .01$; $F_{beliefs}(1, 62) = 8.83$, $p < .01$). Attitudes and beliefs about Asics were more favorable when we omitted the denial ($M_{attitudes}$ = 5.79, $M_{beliefs}$ = 4.74) than when we included it ($M_{attitudes}$ = 4.20, $M_{beliefs}$ = 6.22). Furthermore, correlations between pre- and postdenial measures for Asics were not significant (ps > .36). These outcomes are consistent with the view that a denial will boomerang if no spillover has occurred.

GENERAL DISCUSSION

Whereas previous research has explored spillover from one brand attribute to another or between members of a brand family, our studies address spillover from a brand to a category and to other brands. Within the context of brand scandals, we identify accessibility and diagnosticity as key factors that moderate spillover. Our framework anticipates when scandal spillover is (un)likely to occur and offers advice to rival brands on how to respond. Our focus on category and competitor outcomes supplements prior analyses that speak to the effects of scandals on scandalized brands themselves (e.g., Ahluwalia, Burnkrant, and Unnava 2000; Dawar and Pillutla 2000).

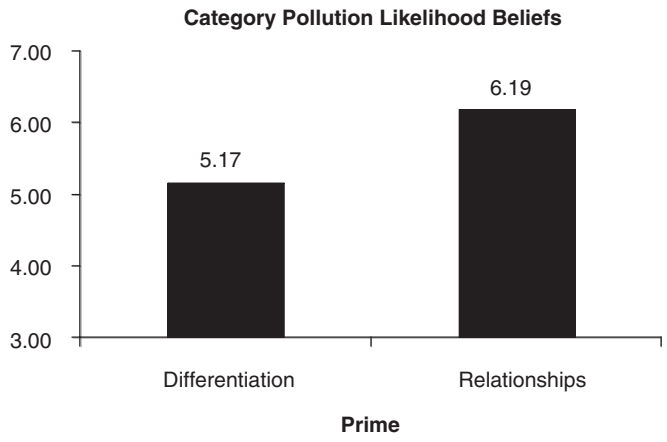
For a scandal to spill over, consumers must activate a spillover target (e.g., a category, a competitor) as scandal information is processed. Activation of a category is especially likely to occur when a scandalized company is typical of that category and when the scandal attribute is closely associated with the category. Activation of a competitor is facilitated when the other brand is strongly linked to the scandalized company, perhaps through a history of direct competition.

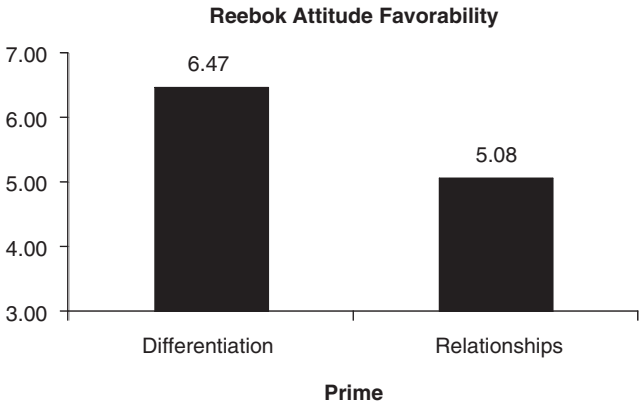
In addition, consumers must view the scandal as applicable to the category and/or to the competitor. Factors that may promote diagnosticity include the typicality of a scandalized company and contextual cues, such as advertisements, that focus attention on relationships among brands. Note that overall similarity does not support adequate diagnosticity to create spillover. Rather, similarity on a scandal attribute appears to be required. On a related note, when attention is focused on differentiation among brands, a scandal is likely to be perceived as unique to the scandalized firm—nondiagnostic for others—and its effect is likely to be isolated.

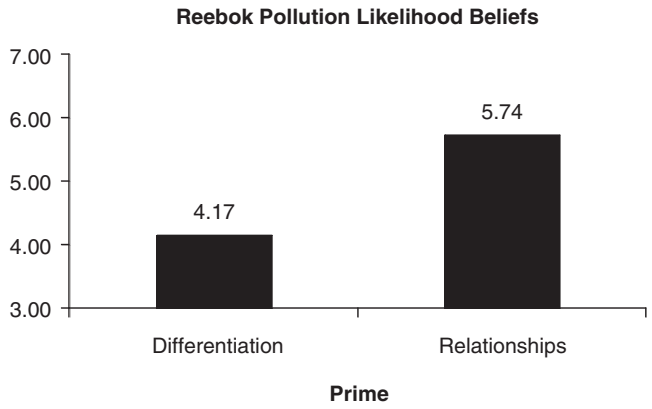
Our research also provides insight into when and how issuing a denial can be beneficial. When spillover occurs, providing a denial results in more favorable judgments than does no denial. This occurs because the denial prompts consumers to correct their inference that the competitor of the

Figure 1
EXPERIMENT 3 RESULTS

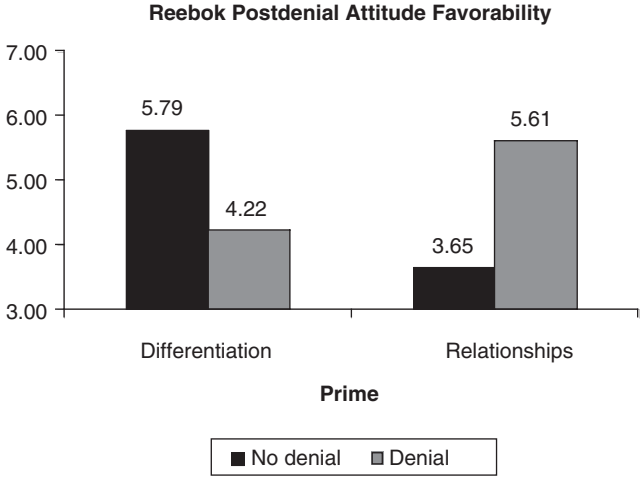
Spillover Effects

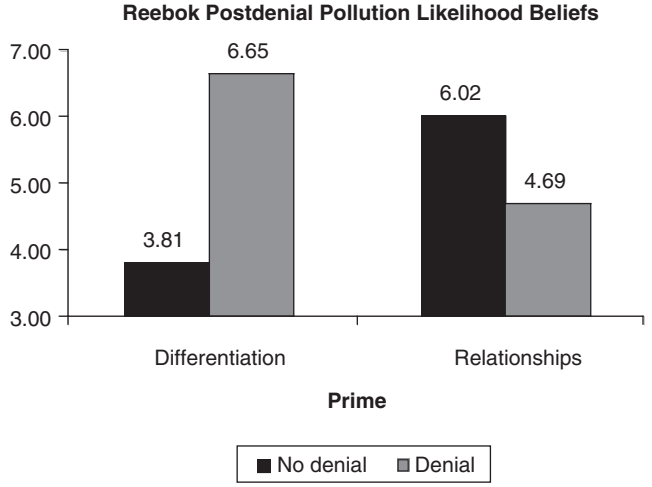






Boomerang and Spillover Correcton Effects





scandalized firm also engages in the scandal behavior. As such, our denial is conceptually similar to the counterargumentation strategy used to offset spillover of negative publicity from one attribute to another within a brand (see Ahluwalia, Burnkrant, and Unnava 2000).

However, when scandal spillover does not occur, our findings reveal that a denial may boomerang. When the denial is not literally informative, consumers may make the pragmatic inference that their initial belief was incorrect and that the brand may indeed be guilty of the denied behavior. Such reasoning is consistent with evidence that denials fail to offset the impact of a rumor that is not believed (see Tybout, Calder, and Sternthal 1981).

Although the effects we report are robust across two product categories, three scandals, and two priming procedures, there also may be limitations to their applicability. The scandals that we examined pertained to practices that might plausibly be engaged in by other members of the same category. Many scandals are of this type. However, some scandals or rumors are linked to a unique feature of a firm, and the relevance of our framework to such cases awaits further research. Another extension of our work would be to pursue the provocative finding in Experiment 3 that spillover to competitors may actually benefit a scandalized firm.

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