Consumer Reactions to Corporate Disaster Relief: The Role of Controllability-Contribution Fit

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Yoshiko DeMotta, Assistant Professor of Marketing, Farleigh Dickinson University, 285 Madison Avenue, Madison, NJ 07940, USA Phone: 973-443-8295; Email: ydemotta@fdu.edu Ana Valenzuela, Associate Professor of Marketing, Baruch College (CUNY), One Bernard Baruch Way, B12-240, New York, NY 10010, USA; Phone: 646-312-3288; Email: ana.valenzuela@baruch.cuny.edu Sankar Sen, Professor of Marketing, Baruch College (CUNY), One Bernard Baruch Way, B12-240, New York, NY 10010, USA; Phone: 646-312-3302; Email: sankar.sen@baruch.cuny.edu The first and second authors contributed equally to the manuscript, and authorship order was determined by a coin flip. This research advances our nascent conceptual understanding of consumer responses to a company's corporate social responsibility (CSR) activities in the increasingly important domain of disaster relief (Ellen, Mohr, and Webb 2000) by painting a nuanced picture of the disasterand contribution-specific determinants of such responses. As well, it provides evidence for the psychological mechanisms underlying such responses, implicating consumers' level of emotionality in their responses to firm actions in this domain. More specifically, it broadens our extant understanding of fit, a notion central to the CSR literature (Gupta and Pirsch 2006; Pracejus and Olsen 2004), by introducing a new type of fit (i.e., that between the perceived controllability of a disaster and the type of contribution) that is particularly germane to consumer judgments of companies' contributions to disaster relief, and possibly even a broader range of social and environmental issues wherein controllability perceptions loom large.

# Abstract

Although more and more companies are engaging in disaster relief efforts, there is little insight into consumer reactions to such efforts. This paper demonstrates, through four studies, that consumer evaluations of a firm involved in disaster relief is an interactive outcome of their perceptions of disaster controllability and the type of corporate involvement. Specifically, corporate contributions of money to a disaster perceived to be largely controllable produce higher company evaluations than do in-kind contributions of equivalent monetary value. In the case of a disaster perceived to be largely uncontrollable, however, in-kind contributions produce more positive reactions than monetary contributions. This interaction is driven by consumers' emotionality-based perceptions of fit between the firm's contribution and disaster controllability, and is restricted to contexts wherein controllability is salient. From forest fires to tsunamis, from Katrina to Sandy, companies have devoted billions of dollars, both in cash and kind, to disaster relief in just the last decade (U.S. Chamber of Commerce 2011). Approximately half of all global Fortune 500 companies contributed cash, goods and services to the South Asian tsunami relief effort in 2004 (Muller, Whiteman, and van der Voort 2006). More recently, the Japanese earthquake and tsunami in March 2011 elicited over \$300 million in corporate aid. The logistics services company FedEx donated one million dollars (mostly cash), while its rival UPS provided transportation and logistics expertise (U.S. Chamber of Commerce 2011). While such corporate action is motivated, no doubt, by the companies' desire to help the disaster victims, research (Du, Sen, Bhattacharya 2008; Sen and Bhattacharya 2001; Torelli, Monga, and Kaikati 2012) suggests that such activities can also, importantly, garner positive reactions from key stakeholders, helping build or cement a company's reputation. Yet, insights into how consumers – an important stakeholder group – react to corporate contributions to disaster relief remain scant.

Of course, greater contributions are likely to be more helpful to both disaster victims and company reputation. However, as exemplified by the FedEx versus UPS contrast, companies need to decide not just how much to contribute, but also in what way (i.e., cash vs. in-kind). Thus, given the virtual ubiquity of corporate involvement in disaster relief today (Muller and Whiteman 2009), it is important, from a reputational perspective, to understand whether and how the precise nature of disaster relief provided by a company influences consumers' responses to it. Prior research (e.g., Ellen, Mohr, and Webb 2000) matches intuition in suggesting that consumers evaluate a firm's nonmonetary, in-kind contribution more positively than its monetary counterpart because the former is perceived to be more effortful than the latter. However, we draw on prior research on causal attributions and their consequences (Meyer and Mulherin 1980;

Weiner 1980) to argue and demonstrate that, at least in the case of disaster relief, consumers' reactions hinge not on the nature of the contribution per se but rather on their assessment of its fit with the perceived controllability of the disaster. Specifically, through four experiments, we demonstrate that consumers evaluate a company's response to a largely uncontrollable disaster more positively when it is in-kind rather than monetary in nature. In the case of a largely controllable disaster, however, they evaluate a company's response more positively when it is monetary, rather than in-kind, in nature. As well, we provide evidence for the driving role of consumers' emotionality-based perceptions of the fit between disaster controllability and company contribution type (i.e., controllability – contribution fit).

In doing so this research makes three contributions. First, it advances our nascent conceptual understanding of consumer responses to a company's corporate social responsibility (CSR) activities in the increasingly important domain of disaster relief (Ellen et al. 2000; Nestlé Waters 2013) by painting a nuanced picture of the disaster- and contribution-specific determinants of such responses. Second, it provides evidence for the underlying psychological process, implicating consumers' level of emotionality in their responses to firm actions in this domain. Third, and more specifically, it broadens our extant understanding of fit, a notion central to the CSR literature (Gupta and Pirsch 2006; Nan and Heo 2007; Pracejus and Olsen 2004), by introducing a new type of fit (i.e., that between the perceived controllability of a disaster and the type of contribution) that is particularly germane to consumer judgments of companies' contributions to disaster relief, and possibly even a broader range of social and environmental issues wherein controllability perceptions loom large.

# THEORETICAL BACKGROUND

Because a disaster is a sudden calamitous event bringing great damage, loss, or destruction (Mirriam-Webster), consumers are wont to make spontaneous attributions about why it happened and whether the damage could have been prevented (Betancourt 1990; Folkes 1984; Weiner, Perry, and Magnusson 1988). And while disasters are inherently external and unstable events (Meyer and Mulherin 1980), they vary in their perceived controllability, or people's summary assessment of the extent to which a disaster, i.e., its cause and consequent damage, could have been controlled or prevented (Baum and Fleming 1993; Quarantelli 1993). For instance, while the 2010 Haiti earthquake was perceived to be a largely uncontrollable disaster, the 2010 Gulf of Mexico oil spill was seen as far more controllable (Kluger 2010; USA Today 2013).

Interestingly, recent research (Zagefka et al. 2011) points to the perceived controllability of a disaster as a key determinant of how the largely unaffected general public reacts to it. In particular, a substantial body of work (Folkes 1984, 1988; Meyer and Mulherin 1980; Tsiros, Mittal, and Ross 2004; Weiner 1985) points to the attributions observers make about the controllability of such an event as powerful drivers of the extent to which they react emotionally to the event and those affected by it. For instance, Meyer and Mulherin (1980) demonstrate that another person's external, unstable misfortunes that are deemed uncontrollable (e.g., losing money in a robbery) tend to elicit strong emotional reactions (e.g., sympathy, distress, fear) from observers whereas when deemed controllable (e.g., losing money on bad investment in the stock market) such misfortunes tend to evoke a relatively unemotional reaction, characterized by low levels of both positive (i.e., sympathy, compassion) and negative affect (i.e., anger: Folkes 1984; Meyer and Mulherin 1980). A similar logic underlies the finding of Zagefka and colleagues (2011) that people are more likely to donate to victims of an uncontrollable, natural disaster than victims of a relatively more controllable, manmade disaster. Based on this, we contend that consumers tend to react more emotionally to disasters they perceive to be less controllable.

This perceived controllability-induced emotionality level is, in turn, likely to influence consumers' evaluations of the company's contribution type (i.e., monetary or in-kind). Specifically, we argue that the stronger affective reaction evoked by a largely uncontrollable disaster will cause consumers to perceive a greater "fit" between the disaster and the more affectrich, in-kind contributions(Ellen et al. 2000), which are often viewed as more emblematic of a company's sympathy and caring. This is consistent with the finding that the greater the emotionality evoked by an event or context, the greater weight people put on the affective characteristics of objects they subsequently evaluate (Hsee and Rottenstreich 2004; Lee, Amir and Ariely 2009). In contrast, the relatively weaker affective reaction evoked by a disaster perceived to be largely controllable will, ceteris paribus, make consumers more likely to perceive a greater fit between the disaster and the more practical, even rational, monetary contributions. This is consistent with Liu and Aaker (2008)'s finding that people focus on rational utility maximization when asked to donate money, compared to when asked to donate time. Our account is also underscored by the broader literature on gift-giving, which points to people's preference for money as a gift over a nonmonetary gift of an equal value when they are in a less emotional, more practical state of mind (Gino and Flynn 2011).

In sum, then, because an uncontrollable disaster is likely to evoke stronger emotional reactions, consumers are likely to perceive a firm's caring, in-kind responses to such disaster as more fitting (i.e., greater controllability-contribution fit) than monetary donations. In contrast, since consumers are likely to react less emotionally to a controllable disaster, they are likely to

perceive a firm's rational, monetary contributions to be a more fitting response (i.e., greater controllability-contribution fit) than in-kind contributions.

Finally, we expect these controllability-contribution fit perceptions to impact consumers' evaluations of the company: while consumers are likely to evaluate a company's response to an uncontrollable disaster more positively when it is in-kind rather than monetary in nature, they are likely to evaluate a company's response to a controllable disaster more positively when it is monetary, rather than in-kind, in nature. Support for this assertion comes from two distinct bodies of research. First, a basic insight from research on processing fluency (Lee and Labroo 2004; Janiszewski and Meyvis 2001; Winkielman and Cacioppo 2001) is that consumers' attitudes toward a stimulus are more favorable when they are able to grasp its meaning more easily. Labroo, Dhar, and Schwarz (2008) show, for instance, that liking for a stimulus (e.g., watch) is higher after consumers are merely exposed to related words (e.g., clock, time) than to unrelated words (e.g., desk, chair). Given that a firm's in-kind [monetary] contributions to an uncontrollable [a controllable] disaster are likely to be processed more fluently (i.e., more likely to feel "right") than monetary [in-kind] contributions, due to greater controllability-contribution fit, such contributions are likely to result in more positive evaluations of the firm. Second, the growing literature on consumer reactions to CSR implicates fit, construed broadly as the perceived match or closeness, in terms of image, positioning, and/or constituency (Varadarajan and Menon 1988), between a brand and/or company (e.g., Avon) and its CSR cause (e.g., breast cancer), as a key driver of consumers' reactions to CSR (Ellen, Webb, and Mohr 2006; Gupta and Pirsch 2006; Nan and Heo 2007; Pracejus and Olsen 2004; Sen and Bhattacharya 2001); the greater the fit, the more positively consumers evaluate the brand/company engaging in CSR.

If, as theorized, the perceived controllability of a disaster drives consumer evaluations of monetary versus in-kind corporate relief efforts, then the predicted differences in such evaluations should manifest primarily when controllability is salient in the minds of consumers (Bargh et al. 1986; Johar, Moreau, and Schwartz 2003). In other words, we expect controllability salience to moderate the predicted interactive effect of perceived controllability of the disaster and the nature of corporate aid on consumers' company evaluations.

Both personality and situational factors contribute to controllability salience. For instance, some people are chronically focused on the controllability of events; such people have a stronger desire to control the outcome of their own as well as others' actions and tend to always attend to controllability related issues when forming judgments (Burger and Cooper 1979). This tendency is also culturally bound: compared to East Asian societies, people in Western societies are more likely to desire higher control over their destiny (Valenzuela, Mellers, and Strebel 2010) and make causal inferences in the face of limited evidence (Dweck, Hong, and Chiu 1993). On the other hand, when controllability is made situationally salient (e.g., through the media), even consumers who do not have a chronic tendency to focus on controllability are likely to use it as an important input into their subsequent judgments (Bargh et al. 1986; Briley and Wyer 2002; Johar et al. 2003).

In sum, we propose a three-step process guiding consumers' evaluations of a company's contributions to disaster relief. First, compared to a disaster that is perceived to be largely controllable, a largely uncontrollable disaster evokes stronger emotional reactions among consumers for whom controllability is salient. Second, the degree of emotionality guides their

perceptions of fit between disaster controllability (i.e., controllable vs. uncontrollable) and the nature of corporate relief contributions (i.e., money vs. in-kind). Third, and finally, greater perceived fit produces higher evaluations of the contributing company than do lower assessments of fit: consumers evaluate a company more favorably when it makes monetary [in-kind] contributions to a largely controllable [uncontrollable] disaster than when it makes in-kind [monetary] contributions of commensurate magnitude. In other words, we expect that when controllability salience is high, consumers' controllability-contribution fit perceptions will mediate the interactive effect of perceived disaster controllability (controllable vs. uncontrollable) and corporate contribution type (monetary vs. in-kind) on their company evaluations.

We test our conceptualization of consumer reactions to corporate disaster relief efforts (figure 1) through four experiments. Given our need for a manipulable disaster scenario that would, at the same time, be believable to our sample population - undergraduate students at a large East Coast university - all studies center around a fictitious disaster (avalanche) which, due to its distant location (California) and time frame (several years prior to the experiments), participants would not necessarily expect to be familiar with, or remember. Study 1 tests our basic outcome prediction and examines the mediating role of controllability-contribution fit. Study 2 replicates the study 1 findings while controlling for potential confounds. Studies 3 and 4 provide further evidence for the underlying process: study 3 demonstrates that uncontrollable disasters elicit stronger emotional responses and study 4 demonstrates the effect of emotionality level on perceived controllability-contribution fit and company evaluations.

Insert Figure 1 about here

# **STUDY 1**

# Design and Procedure

A total of 131 students participated in this study for partial course credit. Six participants failed to follow the instructions (e.g., skipped the experimental manipulation) and were excluded from the final analyses. The final sample consisted of 125 subjects (56% female; average age = 21.67). We employed a 2 (Contribution Type: Monetary vs. in-kind) x 2 (Disaster Controllability: High vs. low) x 2 (Controllability Salience: High vs. low) between-subjects design, with company evaluation as the dependent variable and contribution-controllability fit as the mediator.

We manipulated Disaster Controllability by presenting the cause of the disaster as manmade or nature made. This operationalization is based on previous research that links the cause of a disaster (i.e., manmade versus natural) to its perceived controllability (Baum and Fleming 1993; Quarantelli 1993). As well, we conducted a pretest to verify the validity of our manipulation. Seventy-three students (48% female; average age = 22.3), participating for partial course credit, read a news report from 2005 about an avalanche in California, caused either by a snowstorm (i.e., natural disaster) or by snowmobilers (i.e., manmade disaster; stimuli in Appendix A). In line with prior research (study 3 in Zagefka et al. 2011), participants indicated their perceptions of disaster controllability using two 7-point (1= not at all; 7= a great deal) items ("The affected community could have controlled the disaster" and "The affected community could have prevented the disaster"; r = .42, p < .01). As expected, participants deemed the

manmade disaster as more controllable than the natural one ( $M_{manmade} = 5.12$ ,  $M_{natural} = 3.24$ , t (71) = 2.73, p < .01).

Controllability salience was operationalized in terms of the individual trait variable, desirability of control (Burger and Cooper 1979). This measure assesses the extent to which people desire to control the outcome of events and consequently focus on controllability related issues when evaluating a situation. As part of what was billed as two separate studies, participants were first given a short survey that measured the extent of their desirability for control using the Burger and Cooper's (1979) scale. After a brief filler task, participants read a 2005 news report (see Appendix A) about an avalanche in California, caused either by snowmobiles (manmade) or snowstorm (natural) as well as a logistics services company's disaster relief efforts. The article reported the company's contribution to be either one million dollars that would be used for logistics support (monetary) or logistics services worth one million dollars (in-kind). After reading the news report, participants evaluated the company using a fouritem seven-point scale (1 = not at all favorable; very bad; not at all appealing; not at all helpful;7 = very favorable; very good; very appealing; very helpful). We averaged these to obtain an overall measure of company evaluation ( $\alpha = .94$ ). They then indicated their perceptions of controllability-contribution fit on a two-item 7-point (1 = not at all, 7 = a great deal) scale: "How much do you feel that resources contributed by the firm matched the needs of the affected community?" and "To what extent do the resources contributed by the firm make sense?" We averaged these two measures to create a Fit index (r = .58).

#### **Results and Discussion**

Following McCutcheon (2000), we created a Desirability for Control (DC) index, which excluded items with low item-total correlation to increase internal consistency. The final 10-item index ( $\alpha = .86$ ) is listed in Appendix B. In addition, we searched for outliers using the cell inter-quartile range procedure (i.e., Q1-1.5×IQR; Q3+1.5×IQR, where IQR = Q3-Q1; Tukey 1977; Van den Bergh, Dewitte, and Warlop 2008) on both Company Evaluation and Fit. No observations were identified as outliers.

To test our outcome prediction, we ran a regression with Contribution Type, Disaster Controllability, the DC index and all interactions as predictors of Company Evaluation. Consistent with our prediction, we found a significant three-way interaction ( $\beta$  = 1.86, t (117) = 3.04, *p*< .01). The only other significant effects were the main effect of DC, and its two-way interactions with Disaster Type and Contribution Type (*ps* < .05). Following Aiken and West (1991), we ran simple slope tests to explore the nature of the three-way interaction. Results revealed that participants high in DC (+1 SD) evaluated the company more positively when it contributed cash (vs. services) to help the victims of the controllable disaster (M <sub>monetary</sub> = 5.61, M<sub>in-kind</sub> = 4.70, *t* (117) = 2.00, *p* < .05) but contributed services (vs. cash) to help the victims of the uncontrollable disaster (M<sub>monetary</sub> = 4.55, M<sub>in-kind</sub> = 5.71, *t* (117) = -2.33, *p*< .05). There were no significant differences for the participants low in DC (-1 SD) (*M* HighControllability-monetary = 4.55, *M* HighControllability-in-kind = 4.87, *t* (117) = -.74, *p* > .10; *M* LowControllability-monetary = 5.10, *M* LowControllability-in-kind = 4.60, *t* (118) = 1.10, *p* > .10).

As well, an analogous regression examining the effect of the independent variables on Fit revealed a significant three-way interaction ( $\beta = 1.42$ , t (117) = 2.72, p < .01). Simple slope analysis paralleled the pattern of results obtained for company evaluation: High DC participants perceived cash donations to fit better than service donations with the controllable disaster (M

monetary = 5.54, M in-kind = 4.58, t (117) = 2.74, p < .01). In the case of the uncontrollable disaster, however, donations of services were perceived to fit better than donations of cash (M monetary = 4.30, M in-kind = 5.25, t (118) = -1.82, p = .07). No simple slopes were significant for the low DC participants (ps > .10).

To test whether Fit mediated the interactive effect of disaster controllability, contribution type, and controllability salience on company evaluations, we employed the nonparametric bootstrapping approach with 5,000 resamples to estimate a mediated moderation model (Model 12 in Hayes 2013) with Donation Type, Disaster Controllability, and DC as the predictors, Fit as the mediator, and Company Evaluation as the dependent variable. Consistent with our prediction, Fit mediated the interactive effect of Disaster Controllability, Contribution Type, and DC (i.e., the three-way interaction) on Company Evaluation, with a 95% confidence interval for the indirect effect excluding zero {.27 to 2.18}.

In sum, study 1 demonstrated the interactive effect of perceived disaster controllability and contribution type on company evaluations, and established the mediating role of controllability-contribution fit. It is worth noting, however, that participants could perceive manmade versus natural disasters (i.e., our operationalization of disaster controllability) to vary on other dimensions (e.g., perceived magnitude of the disaster, perceived vulnerability to the disaster, possible recurrence of the disaster) as well, raising the possibility of alternate accounts for our results. Thus, prior evidence (Zagefka et al. 2011) notwithstanding, we used study 2, described next, to strengthen the validity of our study 1 findings through a more direct manipulation of controllability. Because this required us to draw participants' attention, explicitly, to the controllability of the disaster, we expected controllability to be salient for all participants (Johar et al. 2003).

# STUDY 2

# **Design and Procedure**

A total of 105 students (43% female; average age = 21.5) participated in this study for partial course credit. Eight participants who did not complete the entire questionnaire and five participants who had already participated in a previous, related study were excluded from the final sample, which comprised 92 participants (39% female; average age = 21.2). We used a 2 (Contribution Type: Monetary vs. in-kind) x 2 (Disaster Controllability: High vs. low) betweensubjects design. Participants first read a fictitious news account of a large-scale avalanche that was caused by snowmobiles (i.e., a manmade disaster), and a logistics company's subsequent disaster relief efforts. In the high [low] controllability condition, the article explicitly stated that the avalanche and consequent aftermath could [could not] have been prevented by the affected community. The article also reported that a logistics service company had contributed either a million dollars that would be used for logistics support (monetary) or logistics services worth a million dollars (in-kind) towards relief efforts. After reading the article, participants provided their evaluation of the company ( $\alpha = .92$ ) and perceived controllability-cause fit (r = .48) using the same items as in study 1. To verify that the disaster controllability manipulation was successful, we used the same two items as in the study 1 pretest (r = .63). Finally, to obtain preliminary evidence for our claim that disaster controllability affects participants' level of emotionality, we asked respondents to indicate the extent to which they agreed (7-point Likert

scale 1 = Totally Disagree 7 = Totally Agree) with the following statement: "My feelings were affected by the cause of the disaster" (adapted from Small and Verrochi 2009, study 2).

# **Results and Discussion**

Outlier analysis (Tukey 1977; Van den Bergh et al. 2008) resulted in the exclusion of ten participants, bringing the final sample to 82 participants. We analyzed company evaluation, controllability – contribution fit, and the manipulation check items using an ANOVA with Contribution Type, Disaster Controllability and their interaction as independent variables. Participants perceived the disaster controllability as intended: Participants in the high disaster controllability condition indicated that the disaster was more controllable than those in the low disaster controllability condition (M <sub>HighControllability</sub> = 4.23; M <sub>LowControllability</sub> = 3.60, F (1, 78) = 11.29, p < .01). No other main or interaction effect was significant. Additionally, in line with our theorizing, participants exposed to the low controllability condition indicated that their feelings were more affected by the news of the disaster than those exposed to the high controllability condition (M <sub>HighControllability</sub> = 5.16, F (1, 78) = 6.83, p < .05). Again, no other main or interaction effect was significant.

When company evaluation was the dependent variable, the two-way interaction was, as expected, significant (F (1, 79) = 16.16, p < .01). Specifically, in the high controllability condition, the firm's monetary contribution produced higher evaluations than in-kind contribution (M<sub>monetary</sub> = 4.93; M<sub>in-kind</sub> = 4.00, F (1, 79) = 9.80, p < .01), whereas in the low controllability condition, evaluations of the company were lower in the case of monetary contribution than an in-kind one (M<sub>monetary</sub> = 4.82; M<sub>in-kind</sub> = 5.53, F (1, 79) = 3.97, p = .05).

Participants in the high controllability condition also indicated a higher fit, as in study 1, for the monetary contribution than the in-kind one (M monetary = 4.68; M in-kind = 4.17, F(1, 78) = 4.61, p < .05), whereas participants in the low controllability condition assessed the in-kind contribution, as opposed to the monetary one, as having a higher fit (M monetary = 4.56; M in-kind = 5.06, F (1, 78) = 3.21, p = .07). As well, mediated moderation analysis using the bootstrapping approach replicated the finding of study 1 (Model 8 in Hayes 2013): Fit mediated the effect of Contribution Type and Disaster Controllability on Company Evaluation with a 95% confidence interval for the indirect effect excluding zero {.22 to 1.18}.

This study replicated the findings of study 1 with a more controlled manipulation of controllability. It also, importantly, provided preliminary evidence for the theorized effect of disaster controllability on the consumers' emotionality levels. The next two studies aim to provide stronger, more direct tests of the driving role of emotionality level in consumers' reactions, both in terms of perceived fit and company evaluation, to the two different types of corporate disaster relief (figure 1). To reiterate, we argue that the lower levels of emotionality elicited by controllable disasters causes consumers to perceive a greater fit between such disasters and monetary, as opposed to in-kind, contributions, whereas the higher levels of emotionality elicited by uncontrollable disasters causes consumers to perceive a greater fit between such disasters and in-kind, as opposed to monetary, contributions. If this is indeed the case, then (1) manipulations of disaster controllability under high controllability salience should produce the predicted changes in emotionality level (study 3), and (2) independent manipulations of emotionality level should, in interaction with contribution type, produce the predicted changes in controllability-contribution fit and company evaluations (study 4; see Spencer, Zanna, and Fong 2005; Word, Zanna, and Cooper 1974 for similar demonstrations of process).

# **STUDY 3**

# Design and Procedure

A total of 142 students participated in this study for partial course credit. Eleven participants did not comply with the instructions (e.g., skipped the experimental manipulations) and were eliminated from final analysis. Two non-native English-speaking participants who reported difficulty in comprehending the news report (i.e., experimental manipulation) were also eliminated from the final sample, comprising 129 participants (50.9% female; average age = 21.55). We examined the effect of disaster controllability on emotionality level with a 2 (Disaster Controllability: high vs. low) x 2 (Controllability Salience: high vs. low) between- subjects design. Disaster Controllability was manipulated (disaster caused by snowstorm versus snowmobiles) and Controllability Salience was measured (Desirability of Control scale) in the same way as in study 1.

Participants sat in a private cubicle and read the same article about an avalanche in California as in the prior studies. Information about the corporate disaster relief contribution was excluded. After this, we assessed participants' level of emotionality by measuring their reaction time to four words (see Wilcox et al. 2009 for a recent instance of this approach), two with strong emotional content (i.e., emotional, feeling) and two with weak emotional content (i.e., rational, strategic). Based on prior research (Burroughs and Feinberg 1987), we created an Emotionality index by subtracting the reaction time (RT) for the two words with strong emotional content from that for the two words with weak emotional content (analyses using just the words with strong emotional content yielded comparable results). Because of the nature of reaction time measures, we took a natural log transformation (LN) of each measure prior to creating the index (Peck and Childers 2003). Specifically, the Emotionality index was calculated as (LN ( $RT_{rationality}$ ) + LN ( $RT_{strategic}$ ) – LN ( $RT_{emotionality}$ ) – LN ( $RT_{feeling}$ ). A faster reaction time for a word indicates that the specific concept was more salient and available in participants' mind (Fishbach, Friedman, and Kruglanski 2003). Thus, higher values of the Emotionality index reflect faster reaction times for the words with strong emotional content and slower reaction times for those with weak emotional content, implying a higher level of emotionality.

We used the MediaLab and DirectRT softwares to present the instructions and collect response time measures. Specifically, the computer screen presented participants with a series of trials in which a fixation point (++++) would be followed by a string of letters. Participants were told that the string of letters could be a word (e.g., vacation) or a non-word (e.g., favan, niare), and were instructed to indicate whether each word on the screen was a word or a non-word by pressing a specific letter on the keyboard (i.e., "W" for a word and "N" for a non-word). They were also instructed to give equal value to both accuracy and speed in this identification task. After practicing with 10 trials, participants were exposed to 54 strings of letters, among which the focal words were randomly presented. Finally, after a filler task, we assessed participants' desirability for control.

# **Results and Discussion**

Following convention, we excluded from analyses participants who identified the focus words incorrectly (10.6%) and participants whose reaction time to the focal words exceeded

three standard deviations from the mean (5.3%; Fazio 1990), rendering a final sample of 112 participants. We tested our theorized link between disaster type and level of emotionality with the remaining data through a regression with Disaster Controllability, Controllability Salience and their interaction as predictors of the Emotionality index. In line with prior research (Wilcox et al. 2009), we also included participants' reaction time (natural log transformed) to the remaining unrelated words in the lexical task as a covariate to control for individual differences in reaction times ( $\beta = -.03$ , t (107) = -.28, p > .10).

We found a significant interaction effect of Disaster Controllability and Controllability Salience ( $\beta = .19$ , t (107) = 2.80, p < .01). As predicted, simple effects analysis (Aiken and West 1991) revealed that participants high in Controllability Salience (+1 SD) presented higher Emotionality index scores in the uncontrollable disaster condition than in the controllable one (M LowControllability = .27, M HighControllability = .01,  $\beta = .27$ , t (107) = 4.10, p < .01). Participants low in Controllability Salience (-1 SD) were no different in their Emotionality index scores across disaster controllability levels (M LowControllability= .14, M HighControllability = .13,  $\beta = .01$ , t (107) = .14, p > .10). In sum, this study shows that when controllability salience is high, respondents react more emotionally to disasters they perceive to be uncontrollable than those they perceive as controllable. Our final study, described next, assessed the driving role of emotionality level in the disaster controllability and contribution type-based differences in controllability-contribution fit and company evaluations.

#### **STUDY 4**

#### **Design and Procedure**

This study employed a two-factor – Emotionality (high vs. low) and Contribution Type (monetary vs. in-kind) - between-subjects design to test their effects on participants' perceived controllability-contribution fit and company evaluations. A total of 100 students (51.2% female; average age = 21.8) participated in this study for partial course credit. Ten participants were excluded from the final sample because they either showed suspicion during debriefing of the relationship between the priming task used to manipulate Emotionality and company evaluation (3 participants) or did not follow instructions (7 participants). The final sample consisted of 90 participants (49% female; average age = 22.2).

We first manipulated participants' level of emotionality using a method developed by Hsee and Rottenstreich (2004). In the high emotionality condition, participants were asked five questions to report their feelings (e.g., "When you hear the word 'baby,' how do you feel?") whereas in the low emotionality condition, participants answered five questions that required them to engage in careful calculations (e.g., "If a consumer bought 30 books for \$540, then, by your calculations, on average, how much did the consumer pay for each book?"). After answering these questions, participants read a fictitious news report about an avalanche in California (Appendix A). Importantly, since emotionality level in this study was manipulated independently of disaster controllability perceptions, we tried to ensure that participants did not make controllability inferences based on the cause of the disaster by stating explicitly in the news report that the disaster cause had not been determined.

The article then reported on a company's contribution to disaster relief. To enhance the generalizability of our findings, we used a multinational software and network management company in this study. In the in-kind contribution condition, participants learned that the

company had created an aid map (see InterAction 2012), at the cost of a million dollars, to provide detailed project-level guidance for the optimal and efficient disbursement of disaster relief. In contrast, participants in the monetary contribution condition learned that the same company had donated one million dollars, which would be used to develop an aid map. After reading the news, participants indicated their evaluations of the company ( $\alpha = .94$ ) and their perception of controllability-contribution fit (r = .58) using the same measures as in prior studies.

#### **Results and Discussion**

Six participants were identified as outliers according to the same inter-quartile method used in the prior studies and were dropped from the analyses. We tested for the effects of level of emotionality and contribution type on controllability-contribution fit and company evaluation using a 2 (Contribution Type: monetary vs. in-kind) x 2 (Emotionality: high vs. low) ANOVA. The 2-way interaction effect was significant (F (1, 80) = 7.18, p < .01) in the case of Company Evaluation. Contrast analysis supported our expectation: participants in the low emotionality condition evaluated the company more positively when the donation was monetary than when it was in-kind (M <sub>monetary</sub> = 5.89; M<sub>in-kind</sub> = 5.26, F (1, 80) = 3.50, p = .06), whereas those in the high emotionality condition evaluated in-kind contributions more favorably than monetary ones (M <sub>monetary</sub> = 5.23, M <sub>in-kind</sub> = 5.88 F (1, 80) = 3.83, p = .05).

As well, the ANOVA with Fit as the dependent variable revealed a significant two-way interaction (F (1, 80) = 14.07, p < .01). Specifically, participants in the high emotionality condition considered the in-kind contribution to fit better with the disaster than the monetary contribution (M <sub>monetary</sub> = 4.52, M <sub>in-kind</sub> = 5.47, F (1, 81) = 11.51, p < .01). Those in the low

emotionality condition, on the other hand, indicated that the monetary contribution fit better with the disaster than its in-kind counterpart (M monetary = 5.36, M in-kind = 4.78, F (1, 81) = 4.02, p<.05). Finally, as in the preceding studies, Fit mediated the interactive effect of Contribution Type and Level of Emotionality on Company Evaluation (Model 8 in Hayes 2013) with a 95% confidence interval for the indirect effect excluding zero {.36 to 1.59}. In sum, this study provided the final piece of support for our conceptualization of the process underlying consumer reactions to differences in disaster controllability and contribution type.

#### **GENERAL DISCUSSION**

While contributions to disaster relief are virtually *de rigueur* today for both global and local companies, there is still little insight into the extent to which such efforts create shared value (i.e., for both the disaster victims and the company; Boston College Center for Corporate Citizenship 2012). This paper aims to provide at least the beginnings of such an understanding by examining how a company's contribution type (i.e., monetary vs. in-kind) interacts with the disaster controllability perceptions of a key stakeholder group – consumers – to influence their evaluations of the company. Our results suggest that companies are better off, in terms of more favorable consumer evaluations, making monetary rather than in-kind contributions to disasters that are perceived to be largely controllable, while making in-kind rather than monetary contributions to disaster controllability and contribution type only occurs when controllability is salient in the minds of consumers, and is driven by the extent to which the level of emotionality induced by the disaster type (i.e., controllable versus uncontrollable) matches or

fits with, in the minds of consumers, the type of contribution (i.e., monetary versus in-kind) a company makes.

# **Theoretical Contributions**

While a growing body of work examines global patterns in corporate disaster relief involvement (Gao 2011; Patten 2008; Muller and Whiteman 2009) our more specific understanding of consumer reactions to corporate action in this domain comes only, to the best of our knowledge, from the work of Ellen et al. (2000). This work demonstrates that consumers not only support cause marketing that is aimed at disaster relief (as opposed to an ongoing cause) but also react more positively when they perceive companies to make more effort in helping the disaster victims. Our research extends this understanding of consumer reactions to corporate involvement in disaster relief by demonstrating that consumers' preference for the typically more effortful seeming in-kind involvement over straight monetary donations actually depends on characteristics of both the disaster, such as its perceived controllability, and the consumers, such as their desire for, or more generally focus on, control. In this, our research starts to paint a more comprehensive, contingent picture of how consumers view not just corporate disaster relief but, more broadly, company affiliations with any cause that varies along a controllability continuum.

At the heart of our conceptualization is the role of emotionality: we demonstrate that consumer reactions to corporate disaster relief hinge on the level of emotionality induced by their perceptions of disaster controllability. In particular, we demonstrate that an uncontrollable disaster is likely to induce a higher level of emotionality in consumers, making them favor the inherently "emotional" in-kind involvement over the more "rational" monetary kind. While providing an explanation for the results of Ellen et al. (2000), this finding actually represents a departure from most extant research on consumer reactions to CSR/ethical attributes, which takes a primarily cognitive perspective (Irwin and Naylor 2009; Sen and Bhattacharya 2001; Winterich and Barone 2011). More specifically, it adds to the substantial body of enquiry into the role of attributions in consumer evaluations of CSR (Ellen et al. 2006; Sen, Bhattacharya, and Korshun 2006) by documenting the role of motivational and perceptual mechanisms, in contrast to the essentially cognitive nature of inference-making. It would be interesting, of course, for future research to examine how the level of emotionality might influence the kind of attributions consumers make about company involvement in disaster relief.

Our research also contributes to extant notions of fit, which has been widely investigated in the CSR literature due to its driving role in consumer reactions to CSR (Ellen et al. 2006; Gupta and Pirsch 2006; Nan and Heo 2007; Pracejus and Olsen 2004; Sen and Bhattacharya 2001). Widely acknowledged as a multidimensional construct, fit, as examined thus far, refers broadly to the perceived match or closeness, in terms of image, positioning, and/or constituency (Varadarajan and Menon 1988), between a brand and/or company and its CSR cause(s).Implicit to this conceptualization of fit, and indeed the considerable research interest garnered by it, is the sense that companies have the flexibility to choose from many different causes and, thus, their choices say something about their values, their intentions and ultimately their ability to make a difference. As a result, consumers, as do other stakeholders, evaluate a company based on their perceptions of fit between it and the CSR cause. Interestingly, because of the magnitude and urgency of disasters, consumers are less likely to focus on whether or not a company should help out than on exactly how it is doing so (i.e., the type of involvement). As a result, it is not entirely surprising that judgments of company-cause (in this case, disaster relief) fit are likely to recede in importance, giving way, as our research shows, to consumers' assessments of fit between the cause and the type of a company's involvement. Importantly, this new type of fit, proffered by our research, between one or more dimensions of the cause and the precise nature of company involvement may not be restricted to the domain of disaster relief; future research might want to consider assessing whether and the extent to which the fit between a cause and its specific CSR implementation (e.g., Avon's Breast Cancer Walk versus Yoplait's Save Lids to Save Lives campaign) influences consumer reactions towards the CSR effort and the company.

Finally, this research also contributes to our understanding of prosocial behaviors in the context of disaster relief. Specifically, prior research shows that when it comes to direct contributions, people are more likely to help victims of an uncontrollable misfortune than that of a controllable one (Weiner 1980; Weiner et al. 1988). This is consistent with the more specific findings of Zagefka et al. (2011) that more donations are elicited by a naturally caused rather than humanly caused disaster. Our findings reveal, however, that when a person (i.e., the consumer) is an observer of an enactor's (i.e., the company's) helping behavior, there is no main effect of the degree of controllability on appropriateness judgments of helping behavior. Instead, these judgments are based on the observer's aforementioned perceptions of fit between perceived disaster controllability and contribution type. In other words, we show that when it comes to indirect reciprocation (i.e., when the observer rewards the enactor for helping a third party; Nowak and Sigmund 2005) it is the fit between the observer's level of emotionality, induced in part by specific elements of the helping context, and the type of the enactor's help that determines the social benefit to the latter.

# Limitations and Future Research

Naturally, this research has certain limitations, which raise issues for future investigation. For instance, we tested our predictions using two business categories (i.e., logistics and information system services) in which firms' products directly help the victims and communities affected by the disaster. Yet, when a firm's core competencies are not of such obvious direct benefit to the victims of a disaster (e.g., investment banking, consulting services, higher education), a firm's in-kind contribution may not make sense. In such cases, the firm can still provide in-kind help through employee volunteerism or other kinds of labor or supplies-based donations. These have the added benefit of motivating and fulfilling the company's key internal stakeholder group, i.e., its employees (see also Chong 2009; Muller and Kraussl 2011). Needless to say, however, future research is needed to explore whether and to what extent the insights provided by our research replicate in other industries and among other stakeholder groups (e.g., employees, investors).

In our studies, the company helping with disaster relief was not in any way responsible for the disaster. It is possible, particularly in today's marketplace, that the company that caused the disaster could also be involved in disaster relief (e.g., BP compensatory efforts after the Gulf of Mexico oil spill). In such cases, consumers may expect the company to be intimately involved in relief efforts, and mere monetary contributions are likely to be deemed insufficient in the face of such culpability, even though the disaster may be controllable. Interestingly, some research (Muller and Whiteman 2009) suggests that stakeholders may have similar expectations of businesses physically closer to the disaster even in the absence of culpability. It would be interesting for future research, therefore, to investigate whether these expectations actually hold and, if so, what are the underlying processes. Finally, some recent research (Liu et al. 2012) points to the importance of businesses in helping victims of disasters regain their lives and, through that process, their very identities. The roles of perceived disaster controllability and company involvement, and indeed other key disaster- and company-related factors in this profoundly important process would comprise a very worthwhile research endeavor.

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# APPENDIX A: Stimuli for Studies 1 and 4 (Studies 2 and 3 use adapted versions)

#### Manmade disaster and monetary donation



#### Natural disaster and in-kind donation



By the CNN Wire Staff February 26, 2005 5:56 p.m. EDT

#### Investigators probe the avalanche started by snowstorm

(CNN) -- One of the most deadly and destructive avalanches in the U.S. hit a ski area in Squaw Valley, which is located on the east side of the Sierra Nevada in California. A series of large avalanches over-ran and destroyed several buildings in the ski resort and the surrounding area, killing at least 63 people including tourists and local residents. The death toll is expected to rise as many reported missing and believed being buried under 10 to 20 feet of snow. The avalanches hit and completely destroyed the chairlift terminal building, the main ski lodge, several small buildings, two chairlifts, and houses of local residents. Officials said at least 1,500 residents in the local communities have been evacuated and allocated to temporary shelters.

After 36 hours of relentless investigation, the Chief of Police determined that the avalanches were an act of nature. Officials believe that a recent snowstorm in the area put extra stress on the existing snow pack and created the hazardous situation.

The California Governor announced that the state was facing "an unspeakable tragedy." After a visit to some of the afflicted areas, the Governor stated "This is a day of national mourning. I wish to express my deepest grief over the lost lives." It is estimated that the state will have to spend at least \$50 million for the recovery of the damaged infrastructure and the reallocation of victims.

As a response to this disaster, BOC International, a logistics and express delivery services company, detailed plans in a press conference to provide logistic services in order to help the storage and allocation of food and medicines for immediate relief to the victims. This relief effort is estimated to cost the company one million dollars.

A spokesperson of BOC International commented, "As a logistics company with a client base ranging from individual consumers to multinational corporations, we are committed to helping and supporting communities in need.

C Recommend 2,283 people recommend this.



NewsPulse »	
'Pink dress' student becomes celebrity -	
Statistic beats hope in Russian orphanage	
Video shows oil burn in Gulf -	10000000
People's Most Beautiful People	10000
Ball's 'beach boys' -	1000

APPENDIX B: Desirability of Control scale items (Burger and Cooper 1979)

- 1. I prefer a job where I have a lot of control over what I do and when I do it.
- 2. I would prefer to be a leader than a follower.
- 3. I enjoy being able to influence the actions of others.
- 4. Others usually know what is best for me.
- 5. I enjoy making my own decisions.
- 6. I enjoy having control over my own destiny.
- 7. I consider myself to be generally more capable of handling situations than others are.
- I'd rather run my own business and make my own mistakes than listen to someone else's orders.
- 9. When I see a problem, I prefer to do something about it rather than sit by and let it continue.
- 10. When it comes to orders, I would rather give them than receive them.