Helping in Natural Disasters

Who Helps Natural-Disaster Victims? Assessment of Trait and Situational Predictors

Zdravko Marjanovic,* C. Ward Struthers, and Esther R. Greenglass

York University

This investigation examined whether trait variables (empathy, global social responsibility) and perceived human responsibility predict and interact to predict people’s helping of natural-disaster victims. In Study 1, participants completed a questionnaire and read one of two bogus earthquake reports which portrayed victims as either prepared or unprepared for a foreseeable earthquake. In Study 2, participants completed a questionnaire about the victims of Hurricane Katrina. Across studies, helping was best elicited from high-empathy individuals who attributed responsibility for disasters to human actions (e.g., government), not natural phenomena (e.g., hurricane). Trait variables correlated with helping when assessed individually, but accounted for little unique variance in helping in multiple regression analyses. Judgment of human responsibility predicted helping when participants were familiar with the target disaster (Study 2) but did not predict helping when the disaster was unfamiliar (Study 1). Theoretical implications for researchers and practical implications for aid agencies are discussed.

According to the United Nations (UN), natural disasters are increasing in frequency and severity around the globe (UN, 2011). Rising populations are contributing to the negative impact of natural disasters such that death tolls and devastations are greater in areas with denser human congestion. Also important is the fact that rising populations are influencing poorer inhabitants to leave existing communities and reestablish themselves in areas more vulnerable to natural disasters, such as flood plains, hill sides, and near fault lines. Although our knowledge of natural disasters has blossomed over the last few decades and there has been a proliferation of disaster-resistant technologies, the beneficiaries of these advances are in the minority. They are the residents of affluent nations, such as the United

*Correspondence concerning this article should be addressed to Zdravko Marjanovic, Department of Psychology, Queen’s University, 62 Arch Street, Kingston, Ontario, Canada, K7L 3N6 [e-mail: marjanxrk@gmail.com].

Support for this research was provided by a CGS-SSHRC doctoral scholarship.
States or Japan. Unfortunately, the people most affected by natural disasters live in poverty, which constitutes the majority of the world’s population. This reality was most recently demonstrated by the 2010 Haiti earthquake, which resulted in more than twice the number of deaths as other 7.0-magnitude earthquakes dating back to 1900 (Bilham, 2010).

The successful recovery of affected areas will likely become more dependent on foreign assistance as the scope, scale, and frequency of disasters continues to worsen (UN, 2011). More and more humanitarian crises will require greater and more predictable amounts of relief funding. It is arguable that without the billions of dollars of aid generated from public and private donors for the victims of the 2004 Southeast Asia tsunami, recovery for some of the areas hardest hit would have been unmanageable. Given the amount of financial support generated for victims of natural disasters and the importance of support for affected communities, the factors that influence the individual’s propensity to help victims of natural disasters are an important and understudied topic (American Psychological Association, 2006). Improving our understanding of the psychological factors underlying people’s helping behaviors will help aid agencies generate more funds in future disaster-relief efforts, and additionally, may help policy makers to better gauge the public’s sentiment toward victims, which in turn could influence their reactions to natural disasters to be more compatible with the will of the constituents they serve. As was aptly pointed out by Spiegel (2005), supporting natural-disaster relief efforts from a standpoint of public officials is a safe bet. Natural disasters are thought to be apolitical in that their causes are attributable to natural phenomena, like hurricanes and earthquakes, not to human beings. It is therefore easier, politically, to endorse and champion efforts to raise aid for disaster victims. Supporting disaster-relief efforts also cultivates a humanitarian image for donors, be they public or private, which brings its own set of political and social rewards.

Helping Behavior

Helping behavior is defined as any purposeful behavior, altruistic or egoistic, which results in the improved status or welfare of the target of one’s actions (Bierhoff, 2002). A defining characteristic of helping behavior is that it involves intentional self-sacrifice on the part of the helper (Axelrod & Hamilton, 1981). The helper has to knowingly give something up for the sake of the act, such as his or her time, attention, energy and effort, safety and security, money and material goods. It is this sacrifice of resources that makes helping behavior conceptually different from helping intentions or willingness to help, which are on their own empty statements, regardless of their veracity, because they involve no loss of personal resources. This is similar to the discrepancy between governmental pledges of charitable support, which typically come soon after the sudden onset of a natural disaster, and the fulfillment of these pledges, which are usually only fractionally
realized long after the pledges have been made (e.g., Minsky, 2010). Pledges like intentions to help may warm the heart, but ultimately they hold less value for victims in crisis than a clean rag, a bottle of water, and a safe place to sleep. Helping behavior thus may be motivated by altruism, self-interest, or both; from the perspective of the victim it is irrelevant. The key component of helping behavior from a practical stance is that it is a volitional act which involves self-sacrifice and it is observable and quantifiable.

**Trait Antecedents of Helping**

From an individual differences perspective, empathy and social responsibility are two variables that have received considerable attention in the study of helping behavior. **Empathy**, the capacity to experientially identify with another human being, is considered by many psychologists to be a logical motivational antecedent of helping behavior (e.g., Zhou, Valiente, & Eisenberg, 2003). Although in the past, researchers have conceptualized and measured empathy as the capacity for affective identification, to be able to feel what another person is feeling (see Eisenberg & Miller, 1987), there is some agreement today that empathy consists of both affective and cognitive dimensions. This corresponds to an individual’s ability to feel what another is feeling and to think what another is thinking. Davis’s (1996) widely accepted conceptualization and measurement of these factors are as **empathic concern** and **perspective taking**, respectively.

The empirical relationship between empathy and helping has been demonstrated in numerous investigations. As a trait variable, Unger and Thumuluri (1997) found that cognitive and affective empathy were both positively related to volunteering and differentiated volunteer from nonvolunteer participants. Bekkers (2006) found similarly that affective empathy was predictive of charitable giving, more so than other types of prosociality such as blood donation and postmortem organ donation. Harmon-Jones, Peterson, and Vaughn (2003) demonstrated that participants who were induced to experience high levels of empathy volunteered more of their time and money to help a family in distress than participants induced to experience low empathy. In an extensive meta-analysis, Eisenberg and Miller (1987) found a low-to-moderate association between empathy and prosocial behavior, which varied based on measures of empathy (see Zhou et al., 2003).

More recently, Johnson, Olivo, Gibson, Reed, and Ashburn-Nardo (2009) found that individuals exposed to negative stereotypical portrayals of African Americans in the aftermath of Hurricane Katrina (e.g., looting) reported less empathy for the hurricane’s Black victims, which in turn predicted lesser support for public policy initiatives designed to help said victims. Thus, empathy (i.e., being able to identify with victims) mediated the well-documented relationship between media portrayals of natural disasters and the support they ultimately generate (e.g., Oosterhof, Heuvelman, & Peters, 2009). In another study, Chandler,
Griffin, and Sorensen (2008) cleverly demonstrated the importance of empathetic identification and support for natural disaster victims using the name-letter-effect. Participants in their study were more supportive of hurricane victims when the name of the hurricane had the same first initial as the participant’s name.

Social responsibility is another widely studied predictor of helping. Research shows that people who have high levels of social responsibility, a belief that the self is committed to behave in ways that enhance the interests of his/her community (e.g., by adhering to social rules), are significantly more willing to help others than are people with low levels of social responsibility (Berkowitz & Lutterman, 1972; Colby & Damon, 1992; Flanagan, 2004; Lee, Kang, Lee, & Park, 2005). Recently, Michel (2007) showed that a commonality among a diverse group of individuals who (self-reportedly) volunteered to help Hurricane Katrina victims was a sense of personal responsibility and principled commitment (in this case, frequency of religious-service attendance) to help victims in their communities. Global social responsibility, which is similar to social responsibility, extends social commitments and obligations to people outside of the traditional borders of one’s community (e.g., to outgroup communities, such as foreign countries; Starrett, 1996). This is becoming an increasingly important concept given that efforts toward globalization encourage economic interdependence among nations and that advances in communication media, such as the Internet, expose distant peoples to one another’s daily lives and issues. Consequently, traditional community boundaries are being enlarged to include a greater number and diversity of people within them. Starrett (1996) found that global social responsibility was positively correlated with attitudes about social values, attitudes about social activism, hours of volunteering, and financial contributions to peace or ecology organizations. Conversely, global social responsibility was negatively correlated with political conservatism, which itself has been found to negatively predict willingness to help (Skitka, 1999; Zucker & Weiner, 1993). In a more recent demonstration of this idea, Einolf (2010) found that individuals who felt a high level of personal responsibility to the people outside of their immediate social networks were more likely to donate to charity and engage in volunteerism than individuals whose concern for others was narrower in focus (e.g., to their families and their friends). Similarly, Cheung and Chan (2000) showed that an individual’s sense of principled obligation to donate to charity generally was predictive of their willingness to donate to international relief organizations.

Situational Antecedents of Helping (Perceived Victim Responsibility)

In light of the above considerations, individuals with high levels of empathy and global social responsibility should be more likely to help natural-disaster victims than individuals with low levels of empathy and global social responsibility. This relationship, however, may not be as straightforward as it seems. Why
do some natural disasters generate a great deal of foreign assistance and others generate very little? Situational factors may have a part in influencing rates of helping. Presence of bystanders (Latané & Darley, 1970), relationship between the helper and the recipient (Greitemeyer, Rudolph, & Weiner, 2003), and the size of the community (Milgram, 1970) have all been shown to meaningfully influence helping. In fact, there are several situational aspects of a natural disaster which may influence helping behavior toward victims (e.g., death toll, amount of media coverage, victim familiarity, name-letter effect; Chandler, Griffin, & Sorensen, 2008; Field, Shaffer, Motipara, Battar, & Lalani, 2003; Simon, 1997).

Judgment of human responsibility (i.e., the extent to which a natural disaster was foreseeable and therefore, to some extent, preventable) is one aspect of the perception of natural disasters that has received little to no attention by psychologists in relation to trauma, treatment, and general clinical issues (see Marjanovic, Greenglass, Struthers, & Faye, 2009; Skitka, 1999, for exceptions). We argue that one reason for this is the term “natural disaster, which is a misnomer. Semantically, the term attributes the devastation of natural disasters to natural phenomena (e.g., earthquakes) and does not imply that human behavior before, during, and after these events can exacerbate the destructiveness of natural phenomena. Many of these disasters owe a substantial portion of their destructiveness and devastation to human actions. For instance, in the recent 2010 Haiti earthquake, experts attributed about 15% of all deaths and injuries in the Port-au-Prince area to substandard building practices and lack of governmental oversight (Bilham, 2010).

Looking to the future, it is easy to identify similar foreseeable catastrophes where deaths and devastation will be partially attributable to human actions. For example, experts predict a major earthquake will strike Istanbul, Turkey, within the next few decades and that about 35,000 deaths will result from human actions, such as substandard building practices, and inadequate infrastructure and services, etc. (Erdik & Durukal, 2008).

Previous research has shown that if a negative event is perceived as foreseeable and preventable, victims who put forward a maximal amount of effort in trying to prevent the situation before it occurred are regarded more highly and treated better than victims who put forward minimal effort (Rudolph, Roesch, Greitemeyer, & Weiner, 2004). Maximal-effort victims are judged less responsible for their predicaments than minimal-effort victims. This elicits greater levels of sympathy and lower levels of anger, which in turn leads to greater levels of helping. Consequently, one would expect that victims of a foreseeable natural disaster (e.g., an earthquake in Japan) who put forward maximal effort to try to minimize the destructiveness of natural phenomena before it occurred (e.g., use of quake-proof technology in buildings and structures), would elicit low judgment of victim responsibility and therefore high levels of help. Conversely, minimal-effort victims (e.g., a city which could but did not utilize quake-proof technology) would be judged as more responsible for their predicament and elicit lower levels of help.
Traits and Situations Work Together?

Competing approaches by trait-oriented (i.e., personality psychologists) and situation-oriented (i.e., social psychologist) researchers have often resulted in an unresolved question—which type of predictor accounts for the most of the variance in helping behavior? There is reason to believe these factors interact to influence helping. Previous research by Schwartz and Fleishman (1978) showed that the relation between legitimacy of the need to help (similar to judgment of responsibility) and helping behavior is moderated by personal norms (willingness or unwillingness to support increases to welfare). Legitimacy of need only influenced helping with people who had neutral personal norms (those who were neither for nor against increases to welfare): the greater the legitimacy, the greater the help. In contrast, high and low levels of personal norms (pro- and anti-welfare increase, respectively) influenced helping regardless of legitimacy of need. People with high personal norms helped more than people with low personal norms across conditions of legitimacy. We propose a similar interaction of the variables in this investigation. The situational variable, judgment of human responsibility, will influence helping only for participants with low levels of the trait predictors, empathy and global social responsibility. With low levels of these traits, participants will base their helping decisions on the situation alone and therefore human responsibility will negatively predict helping. Participants with high levels of empathy and global responsibility, however, will feel compelled to help victims regardless of their account of human responsibility. Thus, judgment of human responsibility will have the most influence on helping victims when potential donors have low levels of empathy and global social responsibility, but will have little influence on helping when levels of empathy and global social responsibility are high. In this paper, we report two studies that examine predictors of helping on victims of natural disasters.

Study 1

The purpose of this investigation was to examine whether known predictors of helping in general circumstances would also predict helping toward natural-disaster victims. Further, we explored whether trait and situational predictors would interact to affect rates of helping. In Study 1, we measured trait factors, empathy and global social responsibility, and manipulated judgment of human responsibility using a quasi-experimental design. Presenting individuals with one of two bogus newspaper descriptions of an earthquake in South Korea, disaster victims were described as either prepared or unprepared for what was considered a foreseeable natural disaster. Participant reactions were then assessed with a series of trait measures, attitudinal measures about the victims, and both willingness to help and behavioroid measures of helping. We also measured social
desirability (Platow, 1994), political ideology (Skitka, 1999), and prejudice (Gaertner, Dovidio, & Johnson, 1982) to control for potential concomitant relations.

Over and above the influence of the control variables, we hypothesized that: (1) empathy (affective and cognitive) and global social responsibility would each be positively related to helping; (2) judgment of human responsibility would be negatively related to helping; and (3) judgment of human responsibility would moderate the relation between trait predictors and helping. Specifically, in the prepared (i.e., low human responsibility) condition, participants at all levels of empathy and global social responsibility would help victims at about the same levels. However, when victims are portrayed as unprepared (i.e., high human responsibility) for a foreseeable disaster, participants with high levels of empathy and global social responsibility would help more than individuals with low levels of these traits.

Method

Participants

The original sample consisted of 200 undergraduate students fulfilling a research requirement for an introductory psychology course at a large Canadian university. Three participants were removed from the sample because, upon debriefing, they reported knowing or being suspicious that the South Korean earthquake we used to manipulate judgment of responsibility (see below) never happened. The final sample included 175 women (88.8%) and 22 men (11.2%), and had a mean age of 19.78 years ($SD = 4.05$).

Materials

**Bogus earthquake reports.** Two written news reports of an earthquake in Busan, South Korea, were created to manipulate perceptions of victim preparedness, i.e., judgment of human responsibility. Although the earthquake was bogus, it was presented as if it occurred 1 year ago. In each report, Busan is portrayed as a city with a lengthy earthquake history, making earthquakes there foreseeable events. The reports differed in the way that Busan’s citizens prepared their city for the inevitability of earthquakes, similar to how attribution researchers have previously manipulated responsibility judgments of individual victims (see Rudolph et al., 2004). In the **prepared condition** report, Busanians are described as having put forward maximal effort to quake-proof their city (e.g., strengthening buildings and infrastructure). In the **unprepared condition** report, despite having the means to do so, Busanians are described as having done nothing to prepare their city for earthquakes. The result of the earthquake in both reports is that the city was devastated and 155,000 people were killed.
Measures

Social Desirability Scale-17 ($\alpha = .65$; Stöber, 2001). This 17-item scale measures people’s tendencies for responding in an unlikely and socially desirable way. Only 16 of its items were used as per the author’s instructions. Items are self-reported on a dichotomous true–false format for which socially desirable responses are scored as 1s and non-socially desirable responses are scored as 0s. Higher total scores reflect greater socially desirable responding. It has acceptable psychometric properties (Blake, Valdiserri, Neuendorf, & Nemeth, 2006). A sample item is, “I sometimes litter.”

Prejudice against Asians ($\alpha = .72$). Due to a lack of existing measures, prejudice against Asians was assessed with two items adapted from the Modern Racism Scale (MRS; McConahay, 1986). The MRS has acceptable internal consistency and construct validity (Dunbar, 1995). In each of the items, the target word “Blacks” was replaced by the word “Asians” to reflect the target group of interest. Both items were measured on a 7-point scales ranging from 1 = Strongly Disagree to 7 = Strongly Agree. These items were, “Over the past few years, the government and news media have shown more respect to Asians than they deserve” and “Over the past few years, Asians have gotten more economically than they deserve.” Higher scores reflect greater prejudice.

Political ideology ($\alpha = .86$). Political ideology was assessed with a two-item measure constructed for the purposes of this investigation. Items were keyed on 7-point scales ranging from 1 = Extremely Liberal to 7 = Extremely Conservative. These items were, “My political beliefs are” and “When it comes to elections, I tend to support political parties that are.” Higher scores represent greater political conservatism.

Interpersonal reactivity index (Davis, 1996). Only two subscales of this measure, Perspective Taking ($\alpha = .72$) and Empathetic Concern ($\alpha = .748$), were used to measure cognitive empathy and affective empathy, respectively. Each subscale is composed of seven items on 5-point scales (0 = Does Not Describe Me Well to 4 = Describes Me Very Well). Psychometric properties of the two subscales are acceptable (Davis, 1996; Unger & Thumuluri, 1997). Sample items are, “I sometimes find it difficult to see things from the ‘other guy’s’ point of view” and “I often have tender, concerned feelings for people less fortunate than me,” respectively. Higher scores represent higher levels of cognitive and affective empathy.

Global social responsibility ($\alpha = .76$; Starrett, 1996). Global social responsibility was measured with nine items from Starrett’s 16-item scale (items 2, 3, 4, 5, 7, 9, and 10 from the original scale were removed due to redundancy and poor
factor loadings). Two items required minor rewording to change them from a U.S. orientation to a country-neutral one (e.g., from “I have seriously considered being a Peace Corps volunteer” to “I have seriously considered volunteering abroad for a humanitarian cause”). The items focused on commitment to others, ethics, broad-mindedness, justice, and ecology at a global level, and were endorsed on scales ranging from 1 = Strongly Disagree to 7 = Strongly Agree. The psychometric properties of the scale are acceptable.

Judgment of human responsibility (manipulation check, $\alpha = .84$) and willingness to help dependent variable [DV] 1, $\alpha = .87$; adapted from Reisenzein, 1986). After reading the earthquake report, participants were asked to rate levels of the Busians’ responsibility (two items; e.g., “How responsible are these people for their present condition?” and “I think that it is these people’s own fault that they are in their present situation”), and their willingness to help Busians in terms of general help (three items; e.g., “How likely would you help these people?”) and specific help (three items; e.g., “How likely would you assist the victims of this disaster by donating material items [food, clothes, etc.]?”). Items were endorsed on 7-point scales that varied from 1 = Not At All to 7 = Very Much. Higher scores represent higher levels of judgment of responsibility and willingness to help.

Helping behavioroid (DV2). All participants received five raffle tickets to enter into a draw for a $150 cash prize. Each participant had the choice of depositing their tickets: (1) in one box that gave their potential winnings to the victims of the Busan earthquake; (2) in an adjacent box that designated their potential winnings to themselves; or (3) some tickets in one box and some tickets in the other. Thus, our behavioroid measure of helping ranged from 0 (i.e., no tickets for Busian disaster relief) to 5 (i.e., all tickets for Busian disaster relief), and was operationalized as the number of tickets that participants donated to disaster relief.

Procedure

In small groups of up to five at a time, participants were brought into the laboratory and randomly assigned to either the prepared or the unprepared conditions. All participants received study booklets which contained self-report measures and the earthquake report corresponding to their study conditions. After they completed and handed in the study booklet, participants were asked to complete a brief true–false quiz which was based on the information in the earthquake report. They were instructed that they would receive one raffle ticket for a $150 draw for every item they answered correctly. Four items were the same for both conditions, but the last two items restated information about the Busians being prepared or unprepared before the earthquake. When participants completed the quiz, it was...
scored by the researcher, who informed each participant individually that he/she answered five out of the six items correctly and therefore earned five raffle tickets for the $150 prize. They were asked to go into a private area of the laboratory where no one could see them and to put their tickets into the ticket boxes described above. After depositing their tickets, participants were instructed to sit down with the other participants but not talk with anyone. When all of the participants had completed this process, they were debriefed, checked for suspicion about the manipulation, and thanked before leaving.

It is important to note that because the results of the quiz were predetermined and we knew ahead of time that each participant would receive five raffle tickets, ticket numbers and questionnaire-packet numbers were recorded and associated before the participants entered the laboratory. This allowed us to connect participants’ questionnaire results (e.g., willingness to help) with their subsequent helping behavior (i.e., number of ticket deposits for the victims’ benefit). When asked about this aspect of the study, all of the participants believed that the way they distributed their raffle tickets could neither be monitored nor matched up with how they answered the questionnaire. That is, they believed their ticket distributions were known only by themselves.

Results and Discussion

The items of the manipulation check were internally consistent and therefore combined into a composite measure. An independent-samples t-test confirmed the manipulation had the desired effect. Participants in the prepared condition perceived human beings to be less responsible for the disaster ($M = 2.29$, $SD = 1.33$) than participants in the unprepared condition ($M = 3.63$, $SD = 1.51$), $t(194) = -6.56$, $p < .001$, $d = -0.94$. Unexpectedly, levels of willingness to help and helping behavior were not significantly different across disaster conditions. That is, manipulation of human responsibility had no direct effect on helping. Judgment of responsibility was also unrelated to age and sex, ruling out possible demographic effects.

Main Analyses

Descriptive statistics and Pearson correlation coefficients for all of the study variables are presented in Table 1. Correlation results closely supported our expectations and were consistent with previous findings. Social desirability correlated with willingness to help but not helping behavior. Given that participants believed their helping behavior was anonymous and therefore could not be compared with their stated willingness to help, there was reason to expect a relation with willingness to help and a lack of relation with our behavior measure. Political ideology was correlated with willingness to help but not helping behavior, whereas
Table 1. Study 1 Descriptive Statistics and Pearson Correlation Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibility</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social desirability</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scale-17</td>
<td>–.02</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political ideology</td>
<td>.05</td>
<td>.10</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prejudice against Asians</td>
<td>–.01</td>
<td>.02</td>
<td>.06</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathetic concern</td>
<td>–.07</td>
<td>.30</td>
<td>.04</td>
<td>–.15</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perspective taking</td>
<td>–.04</td>
<td>.36</td>
<td>.07</td>
<td>–.04</td>
<td>.41</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global social responsibility</td>
<td>–.05</td>
<td>.14</td>
<td>–.15</td>
<td>.24</td>
<td>.36</td>
<td>.26</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willingness to help</td>
<td>–.01</td>
<td>.34</td>
<td>–.17</td>
<td>–.06</td>
<td>.49</td>
<td>.32</td>
<td>.38</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Helping behavioroid</td>
<td>–.03</td>
<td>–.05</td>
<td>–.10</td>
<td>–.21</td>
<td>.06</td>
<td>.12</td>
<td>.19</td>
<td>.13</td>
<td>–</td>
</tr>
<tr>
<td>M</td>
<td>–</td>
<td>7.18</td>
<td>3.67</td>
<td>3.18</td>
<td>3.08</td>
<td>2.57</td>
<td>5.12</td>
<td>2.15</td>
<td>3.18</td>
</tr>
<tr>
<td>SD</td>
<td>–</td>
<td>2.89</td>
<td>1.12</td>
<td>1.18</td>
<td>0.58</td>
<td>0.61</td>
<td>0.93</td>
<td>1.17</td>
<td>1.42</td>
</tr>
</tbody>
</table>

Note. † $p < .10$, ‡ $p < .05$, § $p < .01$, ‡‡ $p < .001$. Responsibility = Conditions of Human Responsibility, 0 = Prepared (low responsibility), 1 = Unprepared (high responsibility).

prejudice yielded the opposite findings, only correlating with helping behavior, which we again attribute to the anonymity participants felt depositing their raffle tickets. The trait predictors all correlated with willingness to help, but only global social responsibility and perspective taking yielded significant relations with helping behavior. The only finding which failed to meet our expectations was the lack of relationship between judgment of human responsibility and the helping variables.

To further test our hypotheses, we conducted a separate multiple regression analysis for each of the two helping variables: the first on willingness to help and the second on the helping behavioroid measure. All of the predictor and control variables were standardized in order to control for multicollinearity. The model included conditions of human responsibility (i.e., disaster preparedness), traits (perspective taking, empathetic concern, and global social responsibility), and three responsibility-by-trait interaction terms. We also included attitudinal (prejudice, political ideology) and response set variables (social desirability) in the model in order to partial out their influence from the main analyses.

Results of the first regression showed that the control variables, social desirability and to a marginal degree political ideology, were significantly predictive of the criterion willingness to help ($\beta = .18$, $p = .008$, and $\beta = -.12$, $p = .057$, respectively). That is, participants who answered items in a way that was overly consistent with social norms, and those who endorsed a more liberal or left-leaning political ideology, reported higher levels of willingness to help. The data also showed significant main effects for empathetic concern ($\beta = .37$, $p < .001$) and global social responsibility ($\beta = .17$, $p = .015$). Keeping all of the other variables in the model constant, participants who could emotionally identify with others and who considered themselves responsible for people outside of their
immediate community were most willing to help the Busanian victims. The data, however, yielded no significant responsibility-by-trait interactions (see Table 2). The relationship between the trait predictors and willingness to help did not vary as a function of whether victims were portrayed as prepared or unprepared for a foreseeable natural disaster. In total, the model was significant, $F(10, 186) = 9.32$, $p < .001$, accounting for 33.4% of the variance in willingness to help.

Results of the second regression on the helping behavioroid yielded one significant relationship with the control variable for prejudice ($\beta = –.15$, $p = .042$) and one main effect for global social responsibility ($\beta = .16$, $p = .048$). Participants who self-reported prejudice toward Asians were less likely to donate their raffle tickets to help the Busanian victims, whereas participants with high levels of global social responsibility were more likely to donate their tickets. These data also yielded one responsibility-by-trait interaction for perspective taking ($\beta = .17$, $p = .034$). Simple slopes analysis showed that in the prepared condition, where victims were portrayed as having put forth maximal effort, perspective taking did not predict ticket donations for the victims ($\beta = –.09$, $p = .444$). As hypothesized, participants with high levels of perspective taking helped prepared victims about the same amount as participants with low levels of perspective taking (3.01 vs. 3.07 raffle tickets, respectively). In the unprepared condition, however, where victims were described as having put forth minimal effort, perspective taking was predictive of ticket donations ($\beta = .25$, $p = .021$). As hypothesized, participants with high levels of perspective taking helped unprepared victims significantly more than participants with low levels of perspective taking (3.57 vs. 2.87 raffle

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Willingness to help</th>
<th>Helping behavioroid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social desirability scale-17</td>
<td>.21 .08 .17</td>
<td>.02 .11 .01 .054</td>
</tr>
<tr>
<td>Political ideology</td>
<td>−.14 .07 −.12†</td>
<td>−.09 .10 .07</td>
</tr>
<tr>
<td>Prejudice against Asians</td>
<td>.06 .07 .05</td>
<td>−.21 .10 −.15a</td>
</tr>
<tr>
<td>Responsibility</td>
<td>.04 .07 .03 .183c</td>
<td>.04 .10 .03 .025</td>
</tr>
<tr>
<td>Perspective taking</td>
<td>.08 .08 .07</td>
<td>.11 .12 .08</td>
</tr>
<tr>
<td>Empathetic concern</td>
<td>.44 .08 .37c</td>
<td>−.05 .12 −.04</td>
</tr>
<tr>
<td>Global social responsibility</td>
<td>.20 .08 .17a</td>
<td>.22 .11 .16a</td>
</tr>
<tr>
<td>Responsibility × perspective taking</td>
<td>.12 .08 .10 .014</td>
<td>.24 .11 .17a .025</td>
</tr>
<tr>
<td>Responsibility × empathetic concern</td>
<td>.05 .08 .05</td>
<td>−.03 .12 −.05</td>
</tr>
<tr>
<td>Responsibility × global social responsibility</td>
<td>−.01 .08 −.01</td>
<td>−.10 .11 −.07</td>
</tr>
</tbody>
</table>

Note. 1, 2, and 3 = first variables of blocks 1, 2, and 3, respectively. †$p < .10$, *$p < .05$, ‡$p < .01$, §$p < .001$. Responsibility = Judgment of Human Responsibility, 0 = No Responsibility, 1 = Mixed Responsibility, 2 = Full Responsibility.
tickets, respectively). Altogether, the model was significant, $F(10, 186) = 2.13, p = .024$, accounting for 10.3% of the variance in ticket donations to disaster relief.

In summary, the hypotheses of Study 1 were partially supported. Regarding hypothesis 1, which predicted that the trait variables would be positively related to helping, affective empathy predicted willingness to help, but neither affective empathy nor cognitive empathy predicted helping through ticket donations, our helping behavioroid measure. On the other hand, global social responsibility predicted both willingness to help and ticket donations. Consequently, of the three trait variables, global social responsibility was the most valuable due to its relative stability across the helping measures. Hypothesis 2, which predicted that conditions of human responsibility would be negatively related to helping, was not supported for either of the helping variables. Finally, hypothesis 3, which proposed that the trait variables would interact with human responsibility to influence helping, was partially supported. The interaction only emerged with cognitive empathy and was unique to the helping behavioroid variable. This finding suggests that assessing trait predictors is most important when human beings are perceived to be responsible for a disaster. When human beings appear to be not responsible, trait variables have little predictive value because people at all levels of these variables help about the same amount. In general, the data indicate that the trait variables predict helping toward disaster victims better than perceived judgment of human responsibility.

**Study 2**

The purpose of Study 2 was to replicate the findings of Study 1 in a more heterogeneous sample of participants, using a naturalistic, retrospective design in which participants were already familiar with the target disaster as opposed to having to read about it for the first time in the laboratory. The point was to measure existing attitudes and emotions about a well-known real-world event. For this reason we chose Hurricane Katrina in New Orleans, which occurred just prior to the time this study was conducted, as our target disaster.

In contrast to Study 1, in which we manipulated judgment of human responsibility through descriptions of disaster preparedness, another purpose of Study 2 was to allow participants to self-identify the primary cause of a natural disaster and use their responses as our measure of human responsibility. Because the term “natural disaster” is a misnomer in that it does not imply that human actions may exacerbate disaster situations, we wanted to examine whether people who attribute a natural disaster to uncontrollable phenomena (e.g., hurricanes, supernatural forces)—for which human responsibility is nil—have different prosocial reactions to victims than people who attribute the cause to human actions (e.g., failure of government, victim error) and therefore to human responsibility. A potential problem with the Study 1 disaster descriptions was that we referred to
the victims as “the people of Busan,” not distinguishing between the citizenry and government. We used the generic term “people of” in order to present participants with information in an ecologically valid way, as it typically appears in newspaper articles that describe natural disasters. The generic term “people of” can refer to citizens, government officials, or both: we simply wanted to assess how much responsibility participants attributed to the people of the disaster area. In Study 2 we took the more direct approach of just asking participants what their attitudes were about who or what caused the disaster and then derived our measure of human responsibility from whether they attributed the cause to natural phenomena, human actions, or a mixture of both.

Our hypotheses for this study were identical to those of Study 1.

**Method**

**Participants**

The original sample consisted of 188 participants recruited in a large Canadian city. Thirteen participants were removed from the set due to missing data. The final sample consisted of 65 undergraduate students and 110 nonstudent community members (N = 175). There were 77 men and 98 women, with a mean age of 31.21 (SD = 13.78).

**Measures**

In order to measure judgment of human responsibility, the questionnaire began with an open-ended question for which participants had half a page of paper to write about the Hurricane Katrina disaster. This was immediately followed by another open-ended item which instructed participants to “please briefly indicate who or what factor you believe was the most responsible for causing the natural disaster in New Orleans.” Responses to the latter item were coded by two blind judges as to whether the responses reflected low human responsibility (0 = e.g., Mother Nature, hurricane, God), mixed human responsibility (1 = e.g., hurricane and lack of disaster preparedness), or full human responsibility (2 = e.g., unprepared, levees not maintained before hurricane). Inter-rater reliability between the judges was high, Cohen’s K = .89, p < .001 (Landis & Koch, 1977). In the few instances in which the raters were not in agreement, categorization of the response was resolved through discussion.

The measures for social desirability (α = .74), political ideology (α = .906), cognitive and affective empathy (i.e., perspective taking [α = .73] and empathetic concern [α = .75], respectively), and global social responsibility (α = .73) were identical to those used in Study 1.
.84) was changed slightly to refer to American victims instead of South Korean victims. The measure for *prejudice* was also changed to target Americans. *Attitude toward Americans* (ATA, $\alpha = .75$) was a two-item measure constructed for the purposes of this study that bluntly asked participants whether they liked or disliked Americans. These items were “I generally don’t like Americans” (reverse scored) and “My attitudes toward Americans are largely positive.” Response options were on a Likert format ranging from $1 = \text{Strongly Disagree}$ to $7 = \text{Strongly Agree}$. High scores indicated positive attitudes toward Americans.

Finally, our *helping behavior* measure (DV2) was operationalized differently than in Study 1 due to the design change from a laboratory experiment to a questionnaire-based survey. An item that came at the end of the questionnaire stated, “Should you win a raffle and one of the two $150 prizes, you have the opportunity of donating a portion of your winnings to the *American Red Cross Hurricane Katrina Relief Fund* by circling one of the donation options below. The remainder is yours to keep.” Printed below the item were seven donation options that began at $0$ and rose in $25$ increments to $150$. Thus, our behavior measure of helping ranged across seven response options, from $1 = 0$ (no help) to $7 = 150$ (total help), and was operationalized as the amount of potential winnings that the participant sacrificed for the benefit of New Orleanian disaster victims.

**Procedure**

Participants were recruited using a snowball sampling technique. Undergraduate students were recruited to complete a questionnaire in a second-year psychology course, after which they were asked to solicit two adult, nonstudent acquaintances (i.e., community members) to complete the questionnaire. To encourage participation, we informed potential respondents that individuals who agreed to complete the questionnaire would be entered into two separate $150 raffles, giving them two chances to win a $150 cash prize. In addition, students were given course credit for their participation.

**Results and Discussion**

After coding judgment of human responsibility, results showed that 33.7% ($n = 59$) of the sample attributed the disaster to natural phenomena (i.e., low human responsibility; the most frequent response was nature), 45.1% ($n = 79$) to human actions (full human responsibility; the most frequent response was incompetent/negligent government and authority figures; note that 0 participants directly attributed responsibility to citizen victims in New Orleans), and 21.1% ($n = 37$) to a mixture of both natural phenomena and human behavior (i.e., mixed human responsibility; the most frequent response was that Hurricane Katrina
caused the initial disaster, but a lack of governmental preparedness and postdisaster help greatly exacerbated the situation).

In a test of hypothesis 1, the results of one-way ANOVAs showed that judgment of human responsibility was marginally related to willingness to help, $F(2, 172) = 3.03, p = .051$, partial $\eta^2 = .034$, and significantly related to donations of potential raffle winnings to victims, our helping behavioroid measure, $F(2, 168) = 3.37, p = .037$, partial $\eta^2 = .039$. Follow up analyses were conducted using least significant difference (LSD) tests. Participants who attributed the disaster to low human responsibility were significantly less willing to help ($M = 3.88, SD = 1.33$) than participants who attributed the disaster to full human responsibility ($M = 4.46, SD = 1.39$; LSD $p = .017, SE = .24$). However, no differences emerged between the mixed responsibility group ($M = 4.08, SD = 1.50$) and either the low- or high-responsibility groups ($ps > .10$). With the helping behavioroid DV, LSDs showed that the low human responsibility group ($M = 2.49, SD = 1.84$) sacrificed less of their potential raffle winnings to victims than the full responsibility ($M = 3.33, SD = 2.15$; LSD $p = .017, SE = .35$) and mixed responsibility groups ($M = 3.35, SD = 2.05$; LSD $p = .050, SE = .44$). The mixed responsibility group was not significantly different from the full responsibility group (LSD $p > .10$).

Similar to Study 1 findings, judgment of human responsibility was uncorrelated with age and sex ($ps > .10$), ruling out possible demographic effects. There was, however, a weak but statistically significant effect of sample type on responsibility ($r = .18, p = .013$). Specifically, participants recruited from the community attributed greater responsibility to human actions than participants recruited from the university. The significance of this finding is largely attributed to the large sample size in Study 2 and was consequently not explored further.

**Main Analyses**

Descriptive statistics and Pearson correlation coefficients are presented in Table 3. For the most part, correlation results were consistent with our expectations and with the findings of Study 1. Social desirability correlated with willingness to help and dissimilar from Study 1, this time correlated with donations of potential raffle winnings. This was likely because our helping behavioroid measure in Study 2 did not give participants the same feeling of anonymity they had in Study 1; participants knew researchers could compare their responses across helping variables. Political ideology correlated with willingness to help and not donations of potential raffle winnings, whereas prejudice correlated with potential donations but not with willingness to help. Similar to Study 1, the trait predictors all correlated with willingness to help and, to a lesser extent, donations of potential raffle winnings. Finally, judgment of human responsibility positively correlated with both helping variables, in contrast to the null finding of Study 1.
Who Helps Natural-Disaster Victims?

Table 3. Study 2 Descriptive Statistics and Pearson Correlation Coefficients

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social desirability</td>
<td>–</td>
<td>.03</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Scale-17</td>
<td>–</td>
<td>.03</td>
<td>†</td>
<td>.10</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Political ideology</td>
<td>–</td>
<td>.13</td>
<td>†</td>
<td>.21</td>
<td>‡</td>
<td>.22</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Attitude toward Americans</td>
<td>–</td>
<td>.02</td>
<td>†</td>
<td>.41</td>
<td>‡</td>
<td>.51</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Empathic concern</td>
<td>–</td>
<td>.10</td>
<td>†</td>
<td>.36</td>
<td>‡</td>
<td>.31</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Perspective taking</td>
<td>–</td>
<td>.12</td>
<td>†</td>
<td>.50</td>
<td>‡</td>
<td>.36</td>
<td>.45</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Global social responsibility</td>
<td>–</td>
<td>.26</td>
<td>†</td>
<td>.19</td>
<td>‡</td>
<td>.24</td>
<td>.07</td>
<td>.45</td>
<td>–</td>
</tr>
<tr>
<td>Willingness to help</td>
<td>–</td>
<td>.18</td>
<td>†</td>
<td>.17</td>
<td>‡</td>
<td>.19</td>
<td>.12</td>
<td>.45</td>
<td>–</td>
</tr>
<tr>
<td>Helping behavioroid</td>
<td>–</td>
<td>.18</td>
<td>†</td>
<td>.14</td>
<td>‡</td>
<td>.10</td>
<td>.20</td>
<td>.30</td>
<td>.15</td>
</tr>
<tr>
<td>M</td>
<td>1.11</td>
<td>8.02</td>
<td>3.60</td>
<td>4.44</td>
<td>3.01</td>
<td>2.71</td>
<td>4.97</td>
<td>4.19</td>
<td>3.05</td>
</tr>
<tr>
<td>SD</td>
<td>0.88</td>
<td>3.45</td>
<td>1.25</td>
<td>1.52</td>
<td>0.64</td>
<td>0.63</td>
<td>0.98</td>
<td>1.41</td>
<td>2.06</td>
</tr>
</tbody>
</table>

Note. †p < .10, ‡p < .05, ††p < .01, ‡‡p < .001. Responsibility = Judgment of Human Responsibility, 0 = No Responsibility, 1 = Mixed Responsibility, 2 = Full Responsibility.

Table 4. Study 2 Results of Multiple Regression Models for Willingness to Help and Helping Behavioroid

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Willingness to help</th>
<th>Helping behavioroid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
</tr>
<tr>
<td>Social desirability Scale-17</td>
<td>–</td>
<td>.00</td>
</tr>
<tr>
<td>Political ideology</td>
<td>–</td>
<td>.27</td>
</tr>
<tr>
<td>Attitude toward Americans</td>
<td>–</td>
<td>.23</td>
</tr>
<tr>
<td>Responsibility</td>
<td>–</td>
<td>.05</td>
</tr>
<tr>
<td>Perspective taking</td>
<td>–</td>
<td>.11</td>
</tr>
<tr>
<td>Empathetic concern</td>
<td>–</td>
<td>.52</td>
</tr>
<tr>
<td>Global social responsibility</td>
<td>–</td>
<td>.24</td>
</tr>
<tr>
<td>Responsibility × perspective taking</td>
<td>–</td>
<td>.11</td>
</tr>
<tr>
<td>Responsibility × empathetic concern</td>
<td>–</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note. †, ‡, and †† = first variables of blocks 1, 2, and 3, respectively. *p < .05, ‡‡p < .01, *p < .001. Responsibility = Judgment of Human Responsibility, 0 = No Responsibility, 1 = Mixed Responsibility, and 2 = Full Responsibility.

In order to test the study’s main hypotheses, all of the study variables except demographics were standardized and separate regressions were run for each of the two helping variables (see Table 4). The model included judgment of human responsibility, trait variables (perspective taking, empathetic concern, and global social responsibility), and three judgment of human responsibility-by-trait interaction terms. We also included prejudice, political ideology, and social desirability in the model for purposes of statistical control.

Similar to the results in Study 1, the first regression on willingness to help yielded two significant effects for the control variables. Participants who reported
a liberal political ideology ($\beta = -0.21, p = 0.008$) and a favorable attitude toward Americans (i.e., low prejudice, $\beta = 0.17, p = 0.027$) also reported greater levels of willingness to help. The analysis also revealed a significant main effect for empathetic concern ($\beta = 0.40, p < 0.001$). This means that over and above the effects of the other variables in the model, participants who could emotionally identify with others were more likely to report willingness to help Hurricane Katrina victims. Overall, the model was significant, $F(10, 136) = 8.32, p < 0.001$, accounting for 37.9% of the variance in willingness to help.

Also similar to Study 1, results of the second regression on the helping behavioroid measure revealed a significant relationship between prejudice and the criterion. Participants who reported favorable attitudes toward Americans donated more of their potential raffle winnings to Hurricane Katrina victims than those who reported unfavorable attitudes ($\beta = 0.22, p = 0.002$). Helping was also predicted by judgment of human responsibility. The more that participants attributed the disaster to human beings as opposed to natural phenomena, the more they helped victims by donating potential raffle winnings ($\beta = 0.17, p = 0.032$). Also similar to Study 1, the results of the second regression yielded a significant responsibility-by-trait interaction for perspective taking ($\beta = 0.28, p = 0.033$). Simple slopes analysis showed that in the low human responsibility group, where the disaster was attributed to natural phenomena, perspective taking did not predict donations of potential raffle winnings ($\beta = 0.04, p = 0.763$). In that group, participants with high and low levels of perspective taking donated about the same amount of their potential winnings to Hurricane Katrina victims (+1 SD = 2.45 vs. –1 SD = 2.31, respectively). As hypothesized, perspective taking was significantly predictive of raffle donations for participants who attributed the disaster to full human responsibility ($\beta = 0.37, p = 0.002$; +1 SD = 4.00 vs. –1 SD = 2.44), and to a lesser extent, mixed human responsibility ($\beta = 0.22, p = 0.016$; +1SD = 3.36 vs. –1 SD = 2.43). Overall, the model was significant, $F(10, 125) = 4.40, p < 0.001$, accounting for 26.1% of the variance in helping behavior.

In summary, we found little support for hypothesis 1, which predicted a positive relationship between the trait variables and helping. Only affective empathy predicted willingness to help and none of the traits predicted the helping behavioroid measure. Hypothesis 2, however, was not supported in that, surprisingly, greater judgment of human responsibility was related to greater amounts of both willingness to help and donations of potential raffle winnings. Finally, hypothesis 3, the notion that judgment of human responsibility would moderate the relationship between trait predictors and helping, was again partially supported by the interaction between human responsibility and cognitive empathy on the raffle donations, the second and more important of the helping DVs.
General Discussion

The purpose of this investigation was twofold: (1) to examine whether traditional trait and situational predictors of generic helping (empathy and social responsibility, and judgment of human responsibility, respectively) predict helping toward natural disaster victims; and (2) whether trait and situational variables interact in this prediction. The results of two studies using different methodologies, samples, and target disasters were largely consistent and offer a preliminary step toward understanding the psychological phenomenon of disaster relief.

Overall, the results of this investigation yielded mixed support for hypothesis 1—that traditional trait predictors of help would be useful in predicting individuals’ help of natural disaster victims. On their own, correlation analysis showed strong relations between traits predictors and the helping variables; however, results of multiple regression analysis showed these traits accounted for little unique variance in helping, especially after accounting for control variables such as social desirability, prejudice, and political ideology, negating their utility.

In both studies, multiple regression analysis showed that affective empathy was positively predictive of willingness to help but not donations of potential raffle winnings to disaster victims, our two behavioroid measures of helping. Of the two helping variables, it goes without saying that predicting expressions of actual help takes precedence over helping intentions, as helping-intentions measures are only used in the first place as substitutes for behavioral measures (Baumeister, Vohs, & Funder, 2007). These data raise serious questions regarding the utility of helping predictors, such as affective empathy, that have primarily been evaluated using intentions measures as DVs (see reviews by Eisenberg & Miller, 1987; Rudolph et al., 2004).

Interestingly, global social responsibility accounted for unique variance in both helping variables in Study 1 but in neither variable in Study 2. We believe the reason for this discrepancy lies in the level of exposure that participants had with the target natural disasters. In Study 1, participants had no previous exposure to the disaster in Busan, South Korea. We asked them to read about it and its devastation for the first time in the laboratory. In contrast, the participants in Study 2 were already familiar with reports, images, and videos of what conditions were like before, during, and after Hurricane Katrina. For lack of better words, social responsibility may better account for variance in help in situations where disasters are understood as bits of information and individuals have to make their decisions based on their values and principles. In contrast, in the few instances when a natural disaster is unique or interesting enough to receive a lot of media and public attention—as was the case for Hurricane Katrina and the recent Haiti earthquake—perceptions of it take on a sense of gritty reality. Consequently, the predictive utility of global social responsibility becomes redundant with generic trait predictors such as empathy.
Cognitive empathy—the ability to perceptually experience the world from another person’s perspective—accounted for no unique variance among the helping variables in either study, but was the only trait predictor to interact with judgment of human responsibility on helping behavior, supporting hypothesis 3. Across studies, these interactions showed that helping was greatest when human responsibility was perceived to be high and participants had high levels of cognitive empathy. What these findings add about the utility of cognitive empathy as a predictor of help is unclear. Alone, its predictive power was consistent with previous research and redundant with other trait predictors tested in this investigation. Importantly, aid agencies already try to trigger empathic responses in their efforts to generate aid. Advertising campaigns that focus on devastation and human suffering are commonplace, and their effectiveness at generating relief funds is supported by previous findings that show a positive relationship between disaster relief and media attention (Simon, 1997). These results add to the literature by suggesting that, in addition to eliciting empathy, aid agencies may make potential donors more amenable to appeals for help by avoiding the use of the word “natural” in their communications and, as much as possible, highlighting the contributions of human actions in affecting disaster situations. In essence, they should take the blame off of Mother Nature and put it squarely in the lap of human beings.

Finally, our data did not support the traditional finding that judgment of human responsibility is negatively related to helping (hypothesis 2). Overwhelmingly, helping studies have found that when an individual is in an aversive situation and needs help, that person’s best chance of receiving help is to be perceived as someone who could not have reasonably prevented the situation before it occurred and who was not the cause of the situation (Rudolph et al., 2004). In Study 1 of this investigation we failed to find any relation between human responsibility and helping, whereas in Study 2 we found the opposite—greater judgment of human responsibility (over uncontrollable phenomena like “nature” and “God”) was related to greater levels of help. We believe the difference between our studies’ findings and previous research is likely due to our manipulation and measurement of human responsibility; specifically, who participants felt were responsible for the disaster and why. In Study 1 we used bogus newspaper descriptions of an earthquake in South Korea to manipulate judgment of human responsibility. In the descriptions, we referred to the victims as a homogenous group (e.g., “the Busanians”) and did not discriminate between the actions of the government/authority figures and the citizen victims in Busan. A consequence of this may be that if participants did attribute responsibility for the disaster to a single group within the population (e.g., government), it was difficult for them to express this sentiment on our responsibility items without at the same time punishing the Busanians who they felt were not responsible (or were less responsible) for the disaster (e.g., citizens). This was not an issue in Study 2 because we asked participants to specify exactly who or what they believed was the main factor behind the disaster.
In support of the above argument, it is noteworthy that all of our Study 2 participants who attributed responsibility of the disaster in New Orleans to human actions laid the responsibility on incompetent/negligent government authorities and malignant social forces, such as prejudice toward minorities and the poor, not on the citizen victims themselves. Participants who attributed the devastation of Hurricane Katrina to uncontrollable factors such as “nature” and supernatural forces were less inclined to help victims. Why? Well, it is reasonable to suggest that from the perspective of a potential donor, if human actions play a role in creating disasters, then human actions can also play a role in preventing and solving them. This is consistent with a long line of research that shows that individuals are more likely to engage in a behavior if they believe their actions are more likely to succeed rather than fail in achieving an objective (see Ajzen, 1991). Thus, it seems that aid agencies and organizations that attempt to generate support for natural-disaster victims may benefit by avoiding the use of the word “natural” in their communications to potential donors and, as much as possible, highlight the contributions of human actions and inactions in affecting disaster situations. This strategy may make potential donors more amenable to appeals for help.

**Conclusion**

Despite the increasing frequency, destructiveness, and impact of natural disasters, there is a paucity of research that examines donor psychology in this area. This investigation demonstrated that previous research on helping generalizes to some extent to natural disasters, but the topic is unique enough that it yielded different, counter-intuitive results (relation between human responsibility and help), warranting further study. Theoretically, the importance of these findings is that they may narrow the focus for future researchers interested in pursuing exploration in the area of natural disasters. Practically speaking, research in this area is important because it has the potential to effect real, positive change in the world, such as increasing the capacity of relief agencies to generate funding.

We conclude by informing the reader that out of the total $450 in raffle prizes that were given away in this investigation, participants donated $375 of their winnings to help natural disaster victims. This amount was donated on their behalf to the *American Red Cross Disaster Relief Fund*.

**References**


ZDRAVKO MARJANOVIC is a postdoctoral student in the Department of Psychology at Queen’s University, in Kingston, Ontario, Canada.

C. WARD STRUTHERS is a professor in the Department of Psychology at York University, in Toronto, Canada.

ESTHER R. GREENGLASS is a professor in the Department of Psychology at York University, in Toronto, Canada.
学霸图书馆
www.xuebalib.com

本文献由“学霸图书馆-文献云下载”收集自网络，仅供学习交流使用。

学霸图书馆（www.xuebalib.com）是一个“整合众多图书馆数据库资源，提供一站式文献检索和下载服务”的24小时在线不限IP图书馆。

图书馆致力于便利、促进学习与科研，提供最强文献下载服务。

图书馆导航：
图书馆首页  文献云下载  图书馆入口  外文数据库大全  疑难文献辅助工具