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## Research article

# Donating to disaster victims: Responses to natural and humanly caused events

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### Abstract

*The effect of the cause of a disaster, i.e. whether it was perceived to be caused by human or natural factors, on willingness to donate money to disaster victims was examined. In Study 1 (N = 76), the cause of a fictitious disaster was experimentally varied. In Study 2 (N = 219), participants were asked about their views regarding donations to two real-life disasters, one of which was perceived to be naturally caused while the other one was perceived to be caused by humans. In Study 3 (N = 115), the cause of a fictitious disaster was experimentally varied, but this time measures of the proposed psychological mediators of the effect on donations were included, namely perceived victim blame and the extent to which victims were thought to make an effort to help themselves. A measure of real donation behaviour was also added. In Study 4 (N = 196), the proposed psychological mediators were manipulated directly, and the effect of this on donations was monitored. Across all studies, more donations were elicited by naturally caused rather than humanly caused disasters. This difference was driven by a perception that the victims of natural disasters are to be blamed less for their plight, and that they make more of an effort to help themselves. Implications for theory and practice are discussed. Copyright © 2010 John Wiley & Sons, Ltd.*

Humanitarian disasters are all too frequent, and the material and human costs of such events are enormous (Swiss Re, 2005). Many people donate to disaster relief appeals (Wrathall & Ellis, 2006). Such appeals are so plentiful that donors have a number of different causes to choose from at any given moment in time. An intriguing question is how donors decide which cause to choose. There are large variations in donations following real-life disasters (see, e.g. the United Nations Office for the Coordination of Humanitarian Affairs, 2007). For example, individual giving after the Asian Tsunami of 2004 was impressive, but other crises of similar impact, e.g. the large-scale humanitarian crisis in Darfur, are less popular (Baker, 2005). There are over a billion of extremely poor people in extremely poor countries worldwide (Collier, 2008). Often, it is the poorest people who suffer from humanitarian disasters, as in the earthquake in Haiti in 2010, and the cyclone in Burma in 2009. The question of what motivates inhabitants of rich nations to help such desperate victims is arguably one of the most important questions to be tackled today.

The aim of the present research was to study the factors that lead individuals to decide to donate to a certain cause, and—through this—to explain why some relief appeals are so much more successful than others. In particular, disasters perceived to be caused mainly by natural factors such as floods or drought were compared to disasters perceived to be caused mainly by human factors such as war and corruption. The psychological mechanisms which might mediate the effects of the perceived

cause of a disaster on willingness to donate to its victims were tested.

Donations have been studied from both a psychological perspective (e.g. Garcia, Weaver, Moskowitz, & Darley, 2002; Holmes, Miller, & Lerner, 2002; Jonas, Schimel, Greenberg, & Pyszczynski, 2002; Levy, Freitas, & Salovey, 2002) and from other angles. Notably, many contributions—but not all, see e.g. Kogut & Ritov, 2007; Small, Loewenstein, & Slovic, 2006)—have not discussed the psychological mechanisms which lead to or prevent a donation. For example, Sargeant and Lee (2004) analysed perceptions of individual charities, explaining why people donate to one organisation rather than another. Others have studied different advertising methods such as the use of pictures, accounting for between-campaign variations in donations (Perrine & Heather, 2000). The effects of individual difference variables such as demographic and financial characteristics of the donor (Wunderink, 2002) and of situational variables such as mortality salience (Ferraro, Shiv, & Bettman, 2005) have also been highlighted. Simon (1997) investigated private donations following earthquakes and found that the extent of media coverage for different causes and the severity of a disaster influenced donations. However, none of this research has investigated potential effects of the perceived cause of a disaster. Yet, reasons why negative events took place are often heavily discussed in the media. It is therefore entirely possible that the perceived causes of disaster events might shape people's reactions to them, and a

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systematic account of just how this might happen seems long overdue.

There is a large psychological literature on pro-social behaviour (e.g. Batson, 1998; Deaux, Dane, & Wrightsman, 1993; Dovidio & Penner, 2004; Dovidio, Piliavin, Schroeder, & Penner, 2006; Penner, Dovidio, & Piliavin, 2005; Simmons, 1991). Although much of this work has focussed on types of helping other than monetary donations, this literature might nonetheless provide some useful pointers for explaining the effects of the cause of a disaster on psychological reactions to it. This literature has linked a number of variables to helping behaviour, for example empathy with the victim (e.g. Batson, 1997; Batson, Lishner, Cook, & Sawyer, 2005; Batson, Sager, Garst, Kang, Rubchinsky, & Dawson, 1997; see also Piferi, Jobe, & Jones, 2006). It has also been demonstrated that group memberships influence helping (Gaertner & Brickman, 1971; Gaertner, Dovidio, & Johnson, 1982; Saucier, Miller, & Doucet, 2005). There is now renewed awareness that group processes cannot be ignored in the study of prosocial behaviour (Cuddy, Rock & Norton, 2007; Graziano, Habashi, Sheese, & Tobin, 2007; Jonas et al., 2002; Nadler, 2002; Simon, Stürmer, & Steffens, 2000; Stürmer, Snyder, & Omoto, 2005), and several recent works have demonstrated that people are more willing to help ingroup members than outgroup members (Dovidio, Piliavin, Gaertner, Schroeder, & Clark, 1991; Dovidio, Gaertner, Validzic, Matoka, Johnson, & Frazier, 1997; Hornstein, 1978; Levine, Cassidy, Brazier, & Reicher, 2002; Levine, Prosser, Evans, & Reicher, 2005; Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003). However, most of this research has investigated help for an individual while that individual's ingroup or outgroup membership was salient. The present research instead focuses on help for large groups *per se*, i.e. donations to a victim group where it is unclear which individual will benefit from the monetary donation. To our knowledge, only one previous study has investigated such group-level helping. Van Leeuwen (2007) studied the responses of Dutch participants to the Asian Tsunami of 2004, and found that the willingness to help outgroups depends on whether the ingroup is perceived to be under threat. Although this study investigated group-level helping, its focus was not the effect of perceived causes of a disaster. There is a clear gap in the literature when it comes to that question.

### Natural Versus Humanly Caused Disasters

One dimension on which the perceived cause of a disaster might vary is the extent to which it is attributed to natural or humanly caused factors. For example, while the Tsunami was widely perceived to have been caused by natural factors, the Darfur crisis can be described as caused by humans. Of course, the distinction between naturally and humanly caused disasters is not always clear-cut. For instance, a tidal wave might be caused 'naturally' on the surface, but in fact human factors might have contributed (e.g. climate change impacted by human behaviour). However, one type of cause will often dominate over the other in people's perceptions of events. People can think of events as being more or less caused by natural or humanly caused factors; and it is hypothesized that the dominant perception of an event will shape reactions to it. It is proposed that the cause of a disaster might influence

the degree to which the victims are blamed for their plight, and the degree to which they are perceived to make an effort to help themselves. Victim blame and self-help, in turn, are hypothesized to affect willingness to donate.

### Attributions of Victim Blame

From other prosocial contexts, there exists evidence that people are more likely to help innocent victims than those victims that are blamed for their misfortune (Betancourt, 1990; Campbell, Carr, & MacLachlan, 2001; Jackson & Esses, 1997; Piliavin, Rodin, & Piliavin, 1969; Stroebe & Stroebe, 1996; Weiner, 1993). Attributions have also been linked specifically to willingness to donate (Campbell et al., 2001; Cheung & Chan, 2000). It is therefore reasonable to predict that victim blame would reduce donation proclivity. Why, however, might the extent of victim blame be dependent upon the perceived cause of a disaster?

According to the Just World Belief hypothesis (Lerner, 1980), people have an inherent need to believe that the world is just. The suffering of innocents calls into question this just world belief. In order to protect it, people try to construe suffering as just whenever possible, for example by inferring that victims must be blameworthy (Betancourt, 1990; Hafner, 2000). Following from this, it can be proposed that people tend to blame victims of humanitarian disasters when given a chance to do so. Further, humanly caused disasters generally offer more opportunity to blame the victims than naturally caused disasters. For example, it is unlikely that victims of natural disasters could have caused a tsunami, earthquake or hurricane. However, it is often possible that the victims of humanly caused disasters might have contributed to a crisis. For example, they might have caused a famine by overusing the land, they might have caused a civil war by engaging in armed conflict, or they might have caused political instability by electing an incompetent government.

Although of course there are many humanly caused disasters in which the victims did not objectively play any causal role, on the basis of the Just World Belief hypothesis we would expect that potential donors have a tendency to blame the victims even when the available evidence is ambiguous, or when no evidence about the role of the victims is present. This is because potential donors are motivated to blame the victims when given the slightest chance, in order to defend their belief of the world as just. Our definition of humanly caused disasters therefore captures both disasters in which the victims themselves have played a causal role and disasters in which humans other than the victims have played a causal role: In both these types of events, the potential for victim blame is hypothesised to be larger than in naturally caused events.

### Attributions of Self-Help

We further hypothesise that victim blame has a powerful effect on how victims are perceived along other dimensions, so that someone who is blamed is also perceived more negatively in other respects. Such an associative valence transfer has been demonstrated in the seminal work on the halo effect in person perception (Asch, 1946). Similar transfer effects, whereby one

feature has an influence on how a person is judged on other dimensions, might be expected in the present context: If victims are blamed more, they might also be perceived as less likeable and more lazy, and therefore as less willing to make a proactive effort to help themselves.

We were particularly interested in transfer effects to the dimension 'perceived self-help', for two reasons. Although it was shown that a perception that victims are undertaking positive steps to improve their situation increases willingness to help in one early study focusing on helping other than donations (Stroebe & Stroebe, 1996), self-help has not received any attention since then. Given the encouraging findings in this early study, we felt that this concept is certainly due for re-visitation, and that it could reasonably be expected to be important also in the specific helping context of interest here, namely help for large groups in great need. Furthermore, self-help is a particularly interesting concept in the context of humanitarian disasters, because many donation appeals tend to picture victims as rather passive (e.g. pictures of people sitting down and staring into space), presumably in an attempt to underscore their neediness. Although one might expect that victim blame might also cause transfer effects on dimensions other than self-help, we were particularly interested in self-help because its lack is so often invoked in donation appeals, and because one early study on helping underscored the potential importance of this concept.

Taken together, it was proposed that people are more willing to donate to victims of natural rather than humanly caused disasters, and that this difference would at least partly be due to different levels of victim blame and resulting levels of perceived self-help in the two types of situation. It was theorized that victim blame would be higher for human causes (because donors would seek to blame the victims whenever given a chance to do so, and because humanly caused events provide more opportunity for victim blame). It was further theorized that perceived self-help would be lower for human causes (because blaming victims for their plight would lead to them being perceived more negatively along other dimensions too). Finally, it was assumed that victim blame would have a negative impact on willingness to donate, and that a perception that victims are making an effort to help themselves would have a positive impact on willingness to donate.

In formulating these hypotheses, we do not intend to argue that transfer effects from victim blame might not occur on dimensions other than self-help, or that the effects of the perceived cause of a disaster on donations might not also be mediated by factors other than the ones studied here. For example, one could also reasonably assume that different types of disasters might be associated with different levels of perceived stress in the victims and a differential perception of their ability to cope, which then might impact on donation decisions. However, for the reasons outlined above, we felt that the focus on victim blame and self-help presents a good starting point in this initial exploration of helping in disaster settings.

There are several reasons why investigating these hypotheses presents a novel theoretical innovation. Firstly, as outlined above, much work on donations has been very applied in focus, and has not investigated psychological processes which mediate between characteristics of a disaster situation and eventual donation behaviour. Secondly, to our

knowledge no work has investigated potential effects of the perceived cause of a disaster, and only one study has highlighted the potential role of perceived self-help. Thirdly, this contribution will help to extend the research from types of helping traditionally studied to a novel type of helping, namely help for large groups in great need. This type of help has to date received very little attention from psychologists, and we know very little about what causes people to treat different victim groups differently.

The hypotheses were tested in four studies. Study 1 compared responses to a fictitious disaster event which was described as having natural causes in one condition and human causes in the other. Study 2 compared responses to two real-life disasters, the Asian Tsunami of 2004 (widely discussed in the media as having a natural cause) and the humanitarian crisis in Darfur (widely discussed to be humanly caused). Study 3 again manipulated the perceived cause of a disaster focusing on another fictitious event, but including a measure of the proposed mediators and of actual donations in addition to self-reports. Finally, Study 4 directly manipulated perceived victim blame and self-help, to monitor the effect on willingness to donate.

## STUDY 1

This study was designed to test whether disasters which are perceived to have natural causes would trigger more willingness to donate than disasters which are perceived to have human causes. The study focused on a fictitious disaster, varying 'disaster cause' experimentally.

### Method

#### *Pilot Test for Study 1*

A fake article was designed about a fictitious humanitarian disaster which had occurred on a tropical island. It was stated that a storm had swept across the island, causing flooding and destroying buildings, crop and livestock. The dams that had been in place were too weak to fend off the forceful gales, and it was claimed that the islanders were now reliant on help in order to prevent a catastrophic famine. 'Cause' was manipulated through differential information about the reason the dams gave way. In the 'natural' condition, the dams were well-built and gave way because the storm was much stronger than is usual in this part of the world. In the 'humanly caused' condition, the dams were not well-built and gave way because government officials had stolen some of the funds designated to building the dams. Hence, in both conditions the impending disaster—i.e. the proximal cause—was a famine, but the distant cause, i.e. the cause of the famine, differed between experimental conditions (Brickman, Ryan, & Wortman, 1975).

The pilot study tested whether this manipulation had the desired effect on perceived cause. This was tested in a pilot, rather than the main study, because of concerns that otherwise participants would have realized the purpose of the manipulation, which would of course have rendered the interpretation of their responses problematic. Seventy-seven

psychology undergraduate participants (18 male, 59 female, mean age 21) were randomly presented with one of the two fake articles. They were then asked to indicate to which extent they thought the disaster was caused by humans (1 = not at all to 7 = very much), and to which extent they thought the disaster was caused by natural factors (1 = not at all to 7 = very much). The order in which the two items appeared was randomized. Upon completion of the study, participants were thoroughly debriefed.

When conducting a mixed ANOVA with the experimental factor as the between participants factor with two levels and the two attribution items as two levels of a repeated measures factor, as expected, the interaction was highly significant,  $F(1, 75) = 37.76$ ,  $p < .001$ . Pairwise comparisons revealed that attributions to natural causes were significantly stronger in the 'natural cause' condition than in the 'human cause' condition,  $M_s = 6.20, 5.11$ ,  $F(1, 75) = 31.89$ ,  $p = .001$ . Further, attributions to human causes were significantly stronger in the 'human cause' condition than in the 'natural cause' condition,  $M_s = 4.75, 2.70$ ,  $F(1, 75) = 17.54$ ,  $p = .001$ . Hence, there was clear evidence that the manipulation had the desired effect.

### Main Study 1

**Participants** Seventy-six participants volunteered to complete a study during university open days. Participants were relations of prospective students. The mean age was 49.57 years (ranging from 32 to 79). There were 33 males, and 43 females.

### Design

The study had one independent factor (cause) with two levels, 'humanly caused' and 'natural'. Participants were randomly assigned to conditions.

### Procedure and Measures

Participants were randomly presented with one of the two fake articles described above. After reading the scenarios, participants responded to the item 'I would be willing to give donations to the victims' (1 = disagree strongly to 7 = agree strongly). Upon completion of the study, participants were thoroughly debriefed.

### Results

An ANOVA was conducted to test whether the independent variable (IV) 'cause' affected willingness to donate. As expected, willingness to donate was higher in the 'natural' than in the 'humanly caused' condition,  $M_s = 5.31, 4.55$ ,  $F(1, 74) = 4.89$ ,  $p < .03$ ,  $MSE = 2.21$ , providing evidence for the hypothesis that people are more willing to donate to victims of natural rather than humanly caused disasters.

### Discussion

Study 1 suggests that people are more inclined to donate to victims of naturally caused rather than humanly caused

disasters. However, this study does not address the mechanisms by which the cause of a disaster might impact on willingness to donate to disaster victims, as it did not include measures of the proposed mediators 'victim blame' and perceived 'self-help'. Study 2 addressed this issue. Study 2 focused on two real-life events, to increase the ecological validity of this research.

## STUDY 2

### Method

#### Participants

Two hundred nineteen British students participated in exchange for course credits. The mean age was 20.32 years. There were 38 male and 181 female participants.

#### Design

All participants filled out a questionnaire in 2005. There were two versions of the questionnaire, one about the 'Tsunami' disaster, and one about the 'Darfur' disaster. Both events featured in the media at the time the study was conducted. Participants were randomly assigned to conditions ( $N = 111$  for 'Tsunami', and  $N = 108$  for 'Darfur'). Hence, 'disaster type' was a between participants factor with two levels.

#### Procedure and Measures

For participants in the 'Tsunami' condition, items were preceded by the following text: 'Thousands of people died when the big tidal wave hit the coast of several Asian countries last year, and many more had their livelihoods destroyed. They depended on outside help to survive and rebuild their lives'. For participants in the 'Darfur' condition, items were preceded by the following text: 'Thousands of people died in Sudan's province of Darfur at the hand of a rival ethnic group, and many more had to flee to save their lives. Those refugees were dependent on outside help to survive and rebuild their lives.' Then, several items were presented asking the participants about their perceptions of the event, and their inclination to donate money to the victims.

Participants were asked to indicate what they perceived to be the *cause of the disaster*, by choosing whether they thought that the event was mainly naturally caused or mainly humanly caused (forced-choice response format).

*Victim blame* was measured with four items which assessed whether victims were perceived to be responsible for their plight (1 = disagree strongly to 7 = agree strongly): 'I believe that the victims were clearly blameless, they did not do anything to bring the disaster on themselves' (reverse scored); 'I think the victims of the disaster might have been responsible for their plight themselves at least to some extent'; 'I think the victims of the disaster brought the disaster on themselves by their prior behaviour'; and 'I believe the victims of the disaster

did not do anything wrong themselves' (reverse scored);  $\alpha = .90$ .

*Self-help* by the victims was measured with four items (1 = disagree strongly to 7 = agree strongly): 'I believe that the victims did everything humanly possible to improve their situation as best as they could'; 'I believe the victims tried to 'help themselves' as best as they could'; 'I believe that the victims just waited for others to come and help' (reverse scored); and 'I believe that the victims were pretty passive and did not try to help themselves' (reverse scored);  $\alpha = .85$ .

A five item scale measured participants' *willingness to donate* money to the victims (1 = not at all to 7 = very much): 'I would be willing to give donations to the victims of the disaster'; 'I think it is important to give donations to the victims'; 'I think it is the right thing to do to give donations to the victims'; 'I think everyone should donate money to the victims'; and 'I would give the maximum amount I could afford according to my means to the victims';  $\alpha = .82$ .

The questionnaire also included some questions about demographic information and some items which are not of relevance in the present context. Upon completion of the study, participants were thanked and debriefed.

## Results

### Manipulation Check

Chi-square ( $\chi^2$ ) analysis revealed that, as expected, the majority of those participants in the Tsunami condition indicated that they thought the disaster was naturally caused (103 indicated natural causes versus 6 who indicated human causes), and the majority of participants in the Darfur condition indicated that they thought the disaster was humanly caused (105 indicated human causes versus 2 who indicated natural causes),  $\chi^2(1) = 185.44, p < .001$ .

### Relationships Between Variables

A structural equation model (SEM) was specified whereby disaster type (Tsunami versus Darfur, scored 0 versus 1)

Table 1. Bi-variate correlations, Study 2

	Disaster cause	Self-help	Victim blame
Self-help	-0.40***		
Victim blame	0.59***	-0.59***	
Willingness to donate	-0.22***	0.35***	-0.37***

Note: \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

predicted perceived disaster cause (natural versus human, scored 0 versus 1), which in turn predicted perceived 'victim blame', which then predicted perceived 'self-help', which then predicted 'willingness to donate'. Bivariate correlations are displayed in Table 1.

The model fitted the data well. Although the Chi-square was significant, the arguably more important fit indices demonstrated a good fit,  $\chi^2(6) = 20.55, p < .01$ ; CFI = .98; GFI = .96; SRMR = .07. It accounted for 13% of the variance in willingness to donate. As can be seen in Figure 1, all the individual paths were significant and in the hypothesised direction. Importantly, there were three significant indirect effects on willingness to donate,  $z = -4.55, p < .001$  for 'disaster type',  $z = -4.59, p < .001$  for 'disaster cause', and  $z = -5.05, p < .001$  for 'victim blame'.

An alternative model was tested, to yield better support for the predicted causal direction of effects. This alternative model was identical to the one described above, with the exception that the paths from 'willingness to donate' to 'self-help', the path from 'self-help' to 'victim blame', and the path from 'victim blame' to 'disaster cause' were reversed, testing effectively the opposite causal direction to the one proposed by the hypotheses. It is not entirely inconceivable that participants, anticipating that they wish to donate to someone, would consequentially start to think more positive about the potential recipients, in order to avoid cognitive dissonance (Festinger, 1957). It is also not impossible transfer effects might exist from self-help to victim blame, that donors' thoughts about the victims would influence the perceived cause of the disaster. This alternative model did not fit the data well,  $\chi^2(6) = 113.63, p < .001$ ; CFI = .83; GFI = .85; SRMR = .27, yielding further support for the hypotheses.

## Discussion

Study 2 again demonstrated that participants were more willing to donate to a disaster which was perceived to be caused naturally than to a disaster which was perceived to be caused by human factors. This time, the proposed mediators victim blame and self-help were measured, and found to be effective. One problem with correlational data is that the causal direction of observed associations cannot be determined with as great a certainty as is possible with experimental design. Further, although the focus on real-life disasters adds an aspect of ecological validity, greater control over extraneous variables could be achieved by using instead fictitious disasters. Hence, a third study was conducted. The aim was to yield experimental evidence for the proposed mechanisms. Another objective of Study 3 was to also include a behavioural measure of donations in addition to the self-report measure. Although we expected that self-reported willingness to donate would give a good indication of behavioural donation inclinations, we wanted to



Figure 1. 'Victim blame' and 'self-help' mediate the effect of 'cause of disaster' on 'donations', Study 2. Note: \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$

confirm this by adding a behavioural measure. In Study 3, participants were given the option of donating actual money, and the effect of the experimental manipulation on donation behaviour was examined.

### STUDY 3

Like Study 1, this study tested participants' reactions to a fictitious disaster and varied the cause of the disaster experimentally. However, measures of the perceived mediators 'victim blame' and 'self-help' were included as in Study 2. Further, Study 3 included a behavioural measure: Participants were given the opportunity to donate real money. Because few of the works on prosocial behaviour have gone beyond self-report measures, this presents an important innovation. The 'cause' of the disaster (natural versus humanly caused) was manipulated, and the effect of this on donations, victim blame and perceived self-help was measured. It was expected that natural disasters would trigger more donations than humanly caused disasters and that this effect would be caused by differences in perceived victim blame and self-help.

### Method

#### *Pilot Test for Study 3*

A pilot test first tested whether the experimental material was effective in manipulating the perceived cause of a disaster (natural versus human). All participants read a fake article summarizing the fictitious annual report of a major international charity. The report highlighted particularly the suffering caused by famine. Participants were told that as many as 33% of people are under-nourished, that the proportion rises to 57% in some of the worst affected regions, and that millions of people are starving. Then, they were told that the vast majority of famines can be explained by [natural drought/armed conflict], and that [the extremely dry weather conditions/the multitude of current regional conflicts and civil wars] this year were cited as the major cause of the food shortages. The article concluded with a citation from a relief coordinator, urging people to donate money. Hence, the disaster in both experimental conditions was a famine disaster. However, the conditions differed with regards to what caused the famine (natural or humanly caused factors).

Eighty-one psychology undergraduate participants (18 male, 59 female, 4 missing values, mean age 21) were randomly presented with one of the two fake articles. They were then asked to indicate to which extent they thought the famine was caused by humans (1 = not at all to 7 = very much), and to which extent they thought the famine was caused by natural factors (1 = not at all to 7 = very much). The order in which the two items appeared was randomized. Upon completion of the study, participants were thoroughly debriefed. As for the pilot study for Study 1, this measure was assessed in a pilot study rather than the main study in order to reduce demand characteristics.

When conducting a mixed ANOVA with the experimental factor as a between participants factor with two levels and the

two attribution items as two levels of a repeated measures factor, as expected, the interaction was highly significant,  $F(1, 78) = 36.41, p < .001$ . Pairwise comparisons revealed that attributions to natural causes were significantly stronger in the 'natural cause' condition than in the 'human cause' condition,  $M_s = 5.52, 4.23, F(1, 78) = 19.25, p = .001$ . Further, attributions to human causes were significantly stronger in the 'human cause' condition than in the 'natural cause' condition,  $M_s = 5.25, 3.62, F(1, 78) = 28.05, p = .001$ . Hence, there was clear evidence that the manipulation had the desired effect.

#### *Main Study 3*

*Participants* One hundred and fifteen British students participated in the study. The mean age was 19.04 years. There were 17 male participants, and 98 females.

#### *Design*

The study had one independent factor ('cause') with two levels: 'Humanly caused' versus 'natural'. Participants were randomly assigned to conditions.

#### *Procedure and Measures*

After reading the article described above, participants answered a short questionnaire. All items were measured on 7-point scales (1 = not at all/disagree strongly to 7 = very much/agree strongly).

'Victim blame' was measured with four items: 'I think the victims brought the famine on themselves through their prior behaviour'; 'I believe the victims did not do anything which could have triggered the disaster' (reverse coded); 'I think the victims can be blamed for the situation they are in'; and 'I think the victims have played an important role in causing the disaster';  $\alpha = .75$ .

'Self-help' was measured with three items: 'I believe the victims are not making much effort to help themselves'; 'I believe the victims are not trying very hard to improve their situation' (both reverse coded); and 'I believe the victims are working hard to relieve themselves from the disaster';  $\alpha = .81$ .

*Willingness to donate* was measured with four items: 'I would be willing to give donations to the victims of the disaster'; 'I think it is important to give donations to the victims'; 'I think it is the right thing to do to give donations to the victims'; 'I think everyone should donate money to the victims';  $\alpha = .80$ .

To measure *actual donations*, participants received £3 in the form of six 50 pence coins, allegedly to compensate them for their time. An envelope containing this payment was stapled to the back of the questionnaire. There was a further envelope entitled 'donations'. Participants read that they could donate some, none, or all of their payment to the famine victims they had read about by putting the appropriate amount into the second envelope. We counted the number of coins participants donated, which yielded a 7-point scale (0 = no 50p coin donated to 6 = all coins donated). This method to measure actual donations has been successfully used before (e.g. Levy,

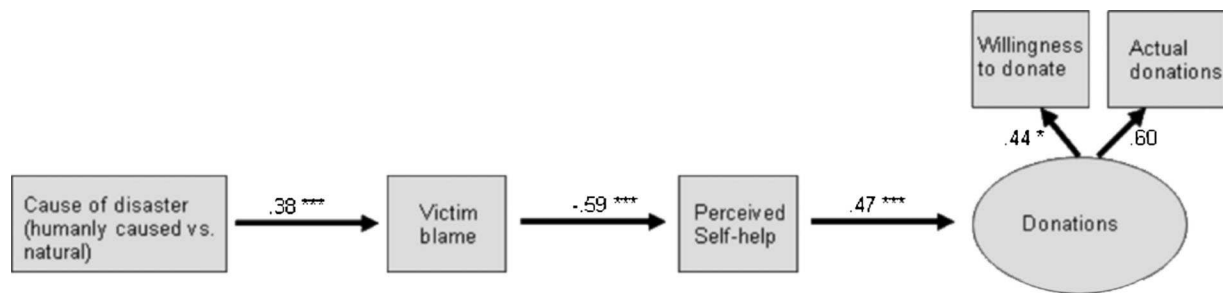


Figure 2. 'Victim blame' and 'self-help' mediate the effect of 'cause of disaster' on 'donations', Study 3. Note: \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$

West, Ramirez, & Karafantis, 2006). None of the participants reported having been suspicious during the debrief.

A number of additional measures which are not of interest in the present context were also included in the questionnaire. Upon completion of the study, participants were thoroughly debriefed. All donations participants had made were subsequently donated to one of the major UK charities involved in overseas aid work.

## Results

### Descriptives

On average, participants donated 4.09 coins (i.e. just over £2 on the scale from £0 to £3). Fifteen participants donated nothing; all others donated at least one coin.

### Mediation by 'Victim Blame' and 'Self-Help'

To test whether the effect of 'cause' on donations was indeed mediated by 'victim blame' and perceived 'self-help', a structural equation model was built. Self-reported 'willingness to donate' and 'actual donations' were specified to load on a factor called 'donations'. The path from the factor to 'actual donations' was fixed to one. 'Cause' was specified to predict 'victim blame', which in turn was expected to impact on 'self-help', which in turn was specified to influence the latent factor 'donations'.

The model fitted the data well,  $\chi^2(5) = 3.72$ ,  $ns$ ; CFI = 1.00; GFI = .99; SRMR = .05. It accounted for 19% of the variance in 'willingness to donate', and for 36% of the variance in actual donations. As can be seen in Figure 2, all the individual paths were significant and in the hypothesised direction. What is more, 'cause' had a significant indirect effect on 'donations',  $z = 2.41$ ,  $p < .05$ , as did 'victim blame',  $z = -2.89$ ,  $p < .01$ . Note further that the Lagrange Multiplier Test indicated that the model could not be significantly improved by adding any direct paths, arguing for complete rather than partial mediation.<sup>1</sup>

An alternative model was tested, to yield further support for the predicted direction of this mediation effect. This alternative model was identical to the one described above,

<sup>1</sup>When testing for mediation using Baron and Kenny's (1986) method, similar conclusions were reached (the same goes for Study 2). However, given that the model comprises two different dependent variables, and two different mediators, SEM results are presented here because they present a more parsimonious test.

with the exception that the path from 'self-help' to the 'donations' factor was reversed, as well as the path from 'victim blame' to 'self-help'. As an alternative hypothesis, it is not entirely implausible that impressions of the victims might be adjusted as a *post hoc* justification for why participants wanted to donate (or not), and that there are transfer effects from self-help to victim blame rather than vice versa. This model fitted the data considerably less well,  $\chi^2(5) = 10.48$ ,  $p < .05$ ; CFI = .92; GFI = .96; SRMR = .11, yielding further support for our hypotheses.

## Discussion

Study 3 yielded clear experimental evidence that people are more inclined to donate to victims of naturally caused rather than humanly caused disasters. It also yielded evidence that this difference can be explained by the fact that people tend to have more negative cognitions about victims of humanly caused disasters. Victims of humanly caused disasters tend to be blamed for their misfortune more and they tend to be perceived as making less of an effort to help themselves. Study 3 extended the previous research in that it measured actual donation behaviour, not only self-reported behavioural intentions. However, as expected, those two DVs loaded on the same latent factor, supporting the idea that the self-report measures of the previous studies are a good pragmatic proxy for actual behaviour.

## STUDY 4

Although the preceding studies yielded strong evidence that the effects of disaster cause are mediated by impressions of the victims, an even more complete test of the proposed causal direction of effects can be obtained by additionally directly manipulating the proposed mediators, in order to test directly their causal effect on willingness to donate. This was the aim of Study 4.

## Method

### Participants

One hundred ninety-six British students participated in the study. The mean age was 19.92 years. There were 36 male and 160 female participants.



### Design

The study had two independent factors with two levels each, 'victim blame' (high versus low) and 'self-help' (high versus low). Participants were randomly assigned to conditions.

### Procedure and Measures

All participants read a fake article about a fictitious humanitarian disaster in an African country. Participants were told that several hundred villages had been destroyed by rebel groups opposing the government, that the assault had destroyed almost all of the villagers' possessions, that without outside donations the victims would soon face disease and starvation, and that a call for donations had been launched to assist them urgently. The article manipulated two aspects of the situation, namely (a) whether it was suggested that the victims might be to blame for their situation or not, and (b) whether victims were presented to make an effort to help themselves or not. Participants were either told that the victims were to blame because they had supported another militia group and because they were involved in the civil conflict themselves, or that the victims were not to blame because they had not supported any other militia group and because they were clearly impartial. Further, participants were either told that the villagers were already trying to improve their situation by building make-shift accommodation and by being very pro-active, or that the victims had not yet started trying to improve their situation by building make-shift accommodation and that they were quite passive.

After reading the article, participants answered a short questionnaire. They also received £3 in the form of six 50 pence coins to compensate them for their time. They were given the option to donate none, some or all of this payment to the victims they had read about, using the same method as described for Study 3. Upon completion of the study, participants were thoroughly debriefed. All donations participants had made were subsequently given to a charity which works to help the victims of civil conflict in Africa.

All self-report measures had 7-point scales (1 = not at all/disagree strongly to 7 = very much/agree strongly). Willingness to donate was measured with the same four items as in Study 3 ( $\alpha = .78$ ). The manipulation check for 'victim blame' consisted of two items: 'I think the victims of this disaster brought the attack on themselves through their prior behaviour'; and 'I believe the victims of this disaster did not do anything which could have triggered the disaster' (reverse scored,  $r = .63$ ). The manipulation check for 'self-help' consisted of two items: 'I believe the victims are not making much effort to help themselves'; and 'I believe the victims are not trying very hard to improve their situation' (both reverse coded,  $r = .87$ ). To measure *actual donations*, we counted the number of 50 pence coins that were donated (0 = none to 6 = all). A number of additional measures were also included in the questionnaire, such as a 4-item measure of how well the victims are perceived to be coping (example item: 'I think the victims are coping quite well psychologically speaking',  $\alpha = .81$ ).

### Results

#### Manipulation Check and Descriptives

A MANOVA was conducted with the experimental victim blame and self-help factors as IVs, and the manipulation check measures for victim blame and self-help as DVs. As expected, the IV victim blame had a significant effect on the victim blame manipulation check,  $F(1, 190) = 101.28$ ,  $p < .001$ . Victim blame was higher in the 'victim blame high' condition than in the 'victim blame low' condition,  $M_s = 3.95$ ; 2.18. The IV self-help had a significant effect on the self-help manipulation check,  $F(1, 190) = 104.35$ ,  $p < .001$ . Self-help was higher in the 'self-help high' condition than in the 'self-help low' condition,  $M_s = 5.68$ ; 3.50, showing the effectiveness of the manipulation. On average, participants donated 3.13 coins (i.e. just over £1.50 on the scale from £0 to £3). Forty-six participants donated nothing; all others donated at least one coin.

#### Effects of Victim Blame and Self-Help on Donations

A MANOVA was conducted to test whether the factors victim blame and self-help (entered into the analysis as IVs) would exert the predicted effects on self-reported willingness to donate and actual donations (entered as DVs). The measure of how well victims were perceived to be coping with the situation was entered as a covariate, to control for this factor. Victim blame had a multivariate effect,  $F(2, 189) = 7.51$ ,  $p < .001$ , as did self-help,  $F(2, 189) = 3.79$ ,  $p < .03$ . There was no multivariate interaction.

Looking at the univariate effects, victim blame had the predicted effect on self-reported willingness to donate,  $F(1, 190) = 14.92$ ,  $p < .001$ , and also on actual donations,  $F(1, 190) = 4.31$ ,  $p < .04$ . Self-help had the predicted effect on willingness to donate,  $F(1, 190) = 7.62$ ,  $p < .006$ , but the effect on actual donations was not significant,  $F(1, 190) = 1.38$ , *ns*. The two independent variables did not interact in their effect on either of the two dependent variables. The pattern of means is displayed in Table 2. As predicted, both self-reported willingness to donate and actual donations were higher if victim blame was low, and if perceived self-help was high. Although the effect of self-help on actual donations was not significant, the pattern of means was in the expected direction.

### Discussion

Study 4 corroborated and extended the results of the previous studies. Results clearly indicated that the way in which victims are perceived exerts a *causal* effect on willingness to donate. Study 4 again demonstrated that the hypothesised predictors do not only impact on self-reported willingness to donate, but that they actually impact on real behaviour. Although it should be acknowledged that only the effect of the 'victim blame' and not the 'self-help' manipulation on 'actual donations' reached significance, the pattern of means was in the hypothesised direction for both IVs. This study also showed that although perceived qualities like victim blame and self-help might covary in line with the halo effect in naturally

Table 2. The effect of victim blame and self-help on donations, Study 4

		Self-reported willingness to donate		
		Victim blame		Marginals
		High	Low	
Self-help	High	4.17 (1.21)	4.84 (1.16)	4.51 (1.22)
	Low	3.86 (1.11)	4.35 (0.89)	4.11 (1.03)
	Marginals	4.02 (1.17)	4.61 (1.06)	
		Actual donations		
		Victim blame		Marginals
		High	Low	
Self-help	High	2.74 (2.50)	3.84 (2.29)	3.29 (2.45)
	Low	2.85 (2.56)	3.06 (2.51)	2.96 (2.53)
	Marginals	2.79 (2.52)	3.47 (2.42)	

Note: SDs in parentheses.

occurring environments, it is nonetheless possible to separate them by manipulating them independently in an experimental, controlled setting.

## GENERAL DISCUSSION

Taken together, there was clear evidence that decisions of whether or not to donate to victims of humanitarian disasters are informed by the perceived cause of a disaster. Results showed that donors were more reluctant to donate to victims of humanly caused rather than natural disasters. This was to no small extent due to the fact that donors tended to perceive victims of humanly caused disasters as being more blameworthy and less pro-active in helping themselves: People form less positive impressions of victims of humanly caused events. This amounts to a systematic bias against people suffering from humanly caused disasters: In line with the just world belief hypothesis, people tend to blame victims wherever possible, and humanly caused events present more opportunities for victim blame. More negative cognitions about the victims on other dimensions like self-help follow suit. People perceive victims of humanly caused events in more negative terms even when there is no information available about the victims' blameworthiness or self-helping efforts. Although victim blame might be appropriate for some humanly caused events, and self-help might justifiably low for some humanly caused events, this is certainly not the case for all humanly caused disasters. Nonetheless, this is the assumption that potential donors appear to make, and this is what constitutes the systematic bias against victims of humanly caused disasters.

Although there were limitations to individual studies, we aimed to rectify those in subsequent studies. For example, while the crucial DV in Study 1 was a one-item measure, this was a reliable multi-item measure in Study 2. Similarly, while the DV in Study 2 was only self-reported behaviour intention, Study 3 included a measure of actual donation behaviour. We would argue that in conjunction, therefore, the present series of

studies presents a coherent and convincing argument in favour of the hypothesised effects. Another limitation concerns the potential generalizability of the findings. Although we would argue that the observed effects will generalise to human and natural disaster causes other than the ones studied here, this cannot be asserted with certainty without further testing. Likewise, although we have no reason to believe that the present effects would not emerge in samples with different demographics, again this could usefully be explored in further research.

We believe that this research generates insights into how charities and NGOs can target their relief appeals more effectively for those causes that are by default unpopular and to help those victims that would otherwise be forgotten. In designing disaster relief appeals, it might be useful to try and explicitly address and counteract people's biases. For example, for humanly caused disasters, appeals could explicitly stress that even though an armed conflict is going on, the victims are impartial civilians who did not trigger the fighting. Similarly, appeals could stress that victims are making an effort to help themselves. This last idea might be particularly helpful, given that many appeals in the past have tended to portray victims as lethargic and passive, presumably to underscore their neediness. Our results suggest that such a portrayal might actually be counterproductive.

Since very few previous attempts have been made to research predictors of help for large groups in great need and specifically donations following humanitarian disasters, unsurprisingly many open questions remain. For example, other potential predictors donations and psychological mediators might be unearthed by future research (for more research on related questions, see Fetherstonhaugh, Slovic, Johnson, & Friedrich, 1997; Slovic, 2007). Further, disasters other than the examples studied here exist, such as disasters related to terrorist attacks or climate change. Future research might usefully extend to such other types of disasters. Finally, although our hypothesis has juxtapositioned events which are perceived to have predominantly natural or human causes, those categories could be further refined. For example, among humanly caused events one might differentiate between events

in which the cause is attributable to the victim group, or to a group which is clearly distinct from the victim group, or to a group which shares a superordinate category with the victim group. The effects of such differential categorizations on psychological reactions to disaster events could be studied further. These and many other issues remain. We hope that one contribution of the present research will be to highlight donations to disaster victims as an interesting topic which merits more attention in the future.

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