It could have been me:

Proximity motivates disaster giving

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Abstract

Effects of physical proximity of potential donors to a disaster location were studied. Physical proximity increased counterfactual thoughts, i.e. thoughts that the donors themselves might have suffered from the event if the circumstances had been a bit different. Counterfactuals, in turn, increased reported willingness to help the victims of the disaster. The same effects were found for hypothetical proximity, in the form of a desire to visit the impacted location before the disaster occurred. The pattern was consistent across five correlational and experimental studies, which focused on a range of real-life and fictitious disasters. The findings are important because they can explain why people and governments often dwell on relatively minor problems at home rather than thousands of people suffering and dying overseas. The findings also suggest an easy and cost-effective way of boosting donations to disaster victims.

Keywords:

Donations, disaster giving, helping, prosocial behavior, proximity

Would it be morally defensible to not save a drowning child because wading in the water would mean you will get your favorite shoes wet? Philosopher Peter Singer (2009) was glad to find that most people disagree. Why then, he wondered, do people not feel the same moral obligation to save a child who is dying on the other side of the world, if a small donations – amounting to less than the price of a shoe – can save a life? This paper shows that physical proximity to people in need encourages helping via counterfactual thoughts. If a terrible event causes suffering in a location proximal to us, we are more cognizant of the fact that we ourselves might have suffered from the event if the circumstances had been a bit different. This, in turn, motivates donations. What is more, the present findings show that actual physical proximity is not necessary to trigger such counterfactual thoughts. Hypothetical proximity, whereby potential donors reflect on the fact that they might have wanted to visit the location before the disaster, is sufficient for triggering donation-eliciting counterfactual thoughts. This is an important insight, because it suggests one very simple and cost-efficient way in which donations to disaster appeals can be boosted. As such, the present data can explain firstly why people often seem indifferent to disaster victims in faraway places, and it secondly points to an important strategy for addressing this indifference.

Counterfactual thoughts are cognitions about what might have been (Roese & Olson, 1995); they are thoughts about alternatives to events. Counterfactuals are very common (Wong, Galinsky, & Kray, 2009), and they play a role when evaluating behavior and experiences of the self (De Brigard, Szpunar, & Schacter, 2013) and of others (Newman & Cain, 2014). They have been shown to be related to affect (Zeelenberg et al., 1998), cognitions (Olson & Roese, 2002), and behavioral choices (Epstude & Roese, 2008). We are specifically interested in the effects of potential donors feeling that they themselves could have suffered from a negative event if the circumstances had been a bit different. This is a 'close counterfactual' (Kahneman & Varey, 1990), which concerns an event which almost

occurred. Counterfactual thoughts are particularly frequent in response to negative (Kahneman & Miller, 1986) and unexpected (Markman et al., 1993) events. Since disasters are usually both negative and unexpected – if they had been expected they might have been prevented – one might expect that counterfactual thoughts arise frequently in this context.

It was hypothesized that potential donors will be more inclined to part with their cash if they believe that they themselves might have ended up in the unfortunate situation which the victims are presently in. After all, if one believes one could easily be in someone else's shoes, this means that the self and other might be perceived as more interchangeable (Cialdini et al., 1997). Donors would certainly want to improve their own situation, and that of those close to them. Moreover, similarity to the victims and their experiences impacts on suffering imputed to the victims (Nordgren, Banas, & MacDonald, 2011), and one's own distress on their behalf (Wayment, 2004). Both these reactions should increase donation proclivity. Indeed, having formerly been in a similar situation as someone in need has been shown to increase helping (Li, Li, Decety, & Lee, 2013). If similarity to the victims and their experiences enhances helping, then the same can be expected for thoughts that oneself might have easily swapped places with the victims. If donors think they might suffer from the same misfortunes, they will experience more negative arousal, and will be more likely to help victims because they will be motivated by the desire to feel better (Kogut & Ritov, 2011). In other words, there is more than one reason why counterfactual thoughts can be expected to increase donation proclivity.

Under which conditions will people feel that they might themselves have suffered from a negative event? Most simply, in order to be directly and personally affected by a negative event, one must be in the wrong location at the wrong time. If one is not in the town which is struck by an earthquake; if one is not resident in a country ravaged by wildfires, then one is very unlikely to be personally affected by said earthquake or the wildfires. Therefore,

at the simplest level, we would expect that being physically proximal to the location where a negative event happens increases counterfactual thoughts, which in turn affects donation proclivity.

Moreover, and important from an applied perspective, it is possible that actual proximity to a location is not even necessary. It might be the case that hypothetical proximity, in the form of a desire to visit the location – at least before it was struck by disaster – will enhance counterfactual thoughts and, through this, donations. In other words, actual proximity to a disaster location might not be strictly required, but hypothetical proximity might be sufficient for triggering counterfactual thoughts. This idea echoes insights in other research areas, such as the positive effect of imagined intergroup contact on intergroup attitudes. There, too, has it been found that actual intergroup contact is not necessary; imagined (Crisp & Turner, 2009) or vicarious (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) contact is often sufficient to induce attitude change. Supporting evidence also comes from the literature on helping more directly: Garcia, Weaver, Moskowitz, and Darley (2002) have demonstrated that in order for the bystander effect (Darley & Latane, 1968) to emerge, real other people are not necessary, but simply imagining a crowd of others is sufficient. Mirroring these findings, it was expected that hypothetical proximity to a location, expressed in a desire to visit the location, might increase counterfactual thoughts. If actual proximity increases counterfactual thoughts because people feel that they were almost at the wrong place at the wrong time, then hypothetical proximity should also increase counterfactual thoughts, because a desire to visit a location will also increase the perceived probability of finding oneself at the wrong place at the wrong time. After all, the perceived hypothetical probability of being in a place one has always wanted to visit will be bigger than the perceived hypothetical probability of being in a place one has never wanted to visit.

The goal of this paper was to highlight a further antecedent of helping, in addition to those already well-established predictors. One of the most well-studied predictors of helping is, no doubt, empathy. Empathy is defined in the Oxford Dictionary as 'the ability to understand and share the feelings of another'. Empathy is a strong predictor of helping tendencies, across a whole range of different situations (Batson, 1990; Eisenberg & Miller, 1987). The purpose of our theorizing was not to replace or question the clearly very important effects which have been demonstrated for empathy, but to add a further piece to the puzzle by focusing on a different, previously overlooked variable.

To sum up, it is hypothesized that proximity to a location where a negative event happened will cause counterfactual thoughts whereby potential donors realize that they themselves might have suffered from the event if the circumstances had been a bit different. This, in turn, is proposed to have a positive effect on donation proclivity. Moreover, actual proximity might not be necessary, but hypothetical proximity to a negative event might be sufficient to generate donation-inducing counterfactual thoughts (see Figure 1). In short, Hypothesis 1 was that actual physical proximity would lead to donation proclivity, and that this effect would be mediated by counterfactual thoughts. Hypothesis 2 was that hypothetical proximity would also increase donation proclivity, and that this effect would be mediated by counterfactual thoughts as well. The hypotheses were tested in five studies, focusing on both real-life and fictitious disaster events.

Study 1

Method. Ninety four participants who reported to be of British nationality volunteered to complete a study during a university open day. Data collection was restricted to this event, and all participants willing to give up 5 minutes of their time were included. Participants were

prospective students and their relations. The mean age was 29.42 years (ranging from 16 to 73; 71 females).

Participants read, in the form of a fake newspaper article, about a fictitious earthquake and tsunami in a Caribbean island which was reported to be a popular tourist destination. The disaster was said to have caused huge losses in terms of life, and tremendous damage to the infrastructure of the country.

To measure counterfactual thought, participants responded to the following three items (1 = *almost impossible* to 7 = *quite possible*): If the circumstances had been a bit different, do you think … 1) that you could have been a victim of this event; 2) that you could have suffered a loss due to this event; 3) that you could have been impacted negatively by this event; $\alpha = .89$.

To measure donation proclivity, participants responded to two items (1 = *not at all* to 7 = *very much*): I would be willing to give a donation to help the victims of this event; I think it is important to give a donation to the victims of this event; $\alpha = .76$.

None of the participants reported being suspicious about the veracity of the fictitious disaster, or any other aspect of the design. This and all following studies followed APA ethical recommendations.

Results. As expected, counterfactual thought was positively associated with donation proclivity towards the victims, $r = .33$, $p < .001$.

Study 2

Method. This study built on the preliminary findings of study 1 and also included proximity. One hundred twenty-two psychology students at a London university participated in the study in exchange for course credits. All students in that year cohort were invited to

participate (but not all agreed because they had several studies to choose from), and data collection was limited to that cohort. The mean age was 20.08 years (109 females).

Participants were randomly assigned to one of two conditions, i.e. whether the event they were responding to was purported to have happened in a location close by (i.e. London, UK) or far away (i.e. Kabul, Afghanistan). Hence, 'location' was a between participants factor with two levels.

All participants were asked to take some time to vividly imagine a potential disaster event involving public transport and an explosion, either in London or Kabul. They were told that money was being collected to help the victims.

To measure counterfactual thought, participants responded to three items very similar to the ones for study 1 (1 = *low counterfactuals* to 7 = *high counterfactuals*; α = .94).

To measure donation proclivity, participants responded to the same two items as for study 1, plus one additional one (1 = *not at all* to 7 = *very much*): I think it is the right thing to do to donate money to help the victims; α = .86.

Results. To test whether 'location' would impact on donation proclivity via counterfactual thought, a path model was specified (using Amos 19) with 'location' as an exogenous variable predicting 'counterfactual thoughts', which in turn predicted 'donations'.

The model fitted the data well, χ^2 (1) = 1.69, ns; CFI = .97; RMSEA = .07. Standardized path coefficients were .31, $p < .001$ to counterfactual thoughts, and .29, $p < .001$ to donations. The R^2 for donations was .08. An analysis with 200 bootstraps revealed that the indirect effect (.09) was significant, as the 90% confidence interval did not contain zero (CI = .17 to .02). Moreover, to ascertain that the proposed model would indeed fit the data better than an alternative causal sequence, an alternative model was estimated where donations and counterfactual thoughts were swapped around, so that 'donations' functioned as mediator,

and 'counterfactual thoughts' were the ultimate outcome. Yielding further support for the predications, this model did not fit the data well, χ^2 (1) = 8.84, $p < .01$; CFI = .63.

Study 3

Method. This study aimed to replicate the findings of study 2 for actual proximity. To achieve greater experimental control, this time both the location of the participant and the location of the disaster were varied.

One hundred and fifty five participants (mean age 27.08, age range 18-65; 106 females) who had been approached via social media and a website advertising psychology experiments completed the study. The target sample size was at least 30 participants per cell, and the sample was closed when checking completion rates revealed that the target had been met.

There were two independent factors with two levels each: participant 'residence location' (A vs. B), and 'accident location' (A vs. B).

Participants completed a thought experiment. They imagined that they were currently living in location A or B. They were then told that there recently was a tragic disaster in either location A or B. After a brief description of this fictitious event, participants completed the relevant scales.

Three items very similar to those described for previous studies measured counterfactual thoughts (1 = *low counterfactuals* to 7 = *high counterfactuals*; α = .94).

To measure donation proclivity, participants responded to three items similar to those previously described, asking for their willingness to donate to the victims of the event (1 = *not at all* to 7 = *very much*; α = .91).

Results. An ANOVA was conducted with 'residence location' and 'accident location' as independent variables (IVs), and counterfactual thoughts as the dependent variable. This

yielded no significant main effects, and the expected interaction, F (1, 151) = 20.37, p < .001,

part. Eta^2 = .12. Simple contrasts were calculated to interpret the interaction. This revealed

that an accident in location A led to more counterfactual thoughts when the residence was

also location A (rather than B), and that an accident in location B led to more counterfactual

thoughts when the residence was also location B (rather than A) (see Table 1).

The analysis was repeated but with donations as the dependent variable. This yielded

no significant main effects, and the expected interaction, F (1, 150) = 6.92, p < .01, part. Eta^2

= .04. Simple contrasts revealed again that as expected counterfactual thoughts were stronger

when the imagined location of residence and the imagined location of the accident coincided

(see Table 1).

To test whether the effect of the interaction on donations was indirect via

counterfactual thoughts, a structural equation model was built where the interaction between

the two IVs predicted counterfactual thoughts, which in turn impacted on donations. The

model fitted the data well, χ^2 (1) = .31, ns; CFI = .99; RMSEA = .001. Standardized path

coefficients were .17, p < .05 to counterfactual thoughts, and .43, p < .001 to donations. The

R^2 for donations was .19. An analysis with 200 bootstraps revealed that the indirect effect

(.07) was significant, as the 90% confidence interval did not contain zero (CI = .02 to .12).

Moreover, to ascertain that the proposed model would indeed fit the data better than an

alternative causal sequence, an alternative model was estimated where donations and

counterfactual thoughts were again swapped around. Yielding further support for the

predications, this model did not fit the data well, χ^2 (1) = 2.75, p = .09; CFI = .80, RMSEA =

.11.

Study 4

Method. This study aimed to extend the findings of the previous studies from actual proximity to hypothetical proximity. A further goal was to demonstrate that counterfactual thoughts are clearly distinct from empathy. Two hundred and six Brits participated in a survey exchange for course credits. All students in that year cohort were invited to participate (during an open day and for course credits), and data collection was limited to that cohort. The mean age was 20.35 years (169 females).[1]

All participants filled out a questionnaire about a real-life disaster event (either the Asian Tsunami of 2004, or the Darfur crisis) which were discussed in the media at the time the study was conducted.

Participants (none of whom had actually been to the location) indicated whether they would 'have liked to go to the affected area before the disaster happened (e.g. for holiday)' (1 = *not at all* to 7 = *very much*). This measure captured hypothetical proximity.

Counterfactual thought was measured with four items very similar to the ones described previously (1 = *low counterfactuals* to 7 = *high counterfactuals*; α = .91). Donation proclivity was measured with five items very similar to the ones described previously (1 = *low donation proclivity* to 7 = *high donation proclivity*; α = .83). Empathy was measured with five items (I feel very concerned for the victims; I feel very compassionate with the victims; I have a lot of empathy with the victims; I feel great sympathy for the victims; I feel very sorry for the victims; 1 = low empathy to 7 = high empathy; α = .89).

Results. A factor analysis was conducted with varimax rotation. This extracted two items with an Eigenvalue greater than 1. All counterfactual items loaded on one factor (loadings ranged from .86 to .91), and all empathy items loaded on a second factor (loadings ranged from .77 to .88). The highest cross-loading among the counterfactual items was .19, and the highest cross-loading among the empathy items was .20. The factor structure clearly suggests that counterfactuals are theoretically and empirically distinct from empathy.

A model was specified with 'hypothetical proximity' as an exogenous variable predicting a latent factor 'counterfactual thoughts' (with the four individual items serving as indicator to this factor), which in turn predicted a latent factor 'donations' (with the five individual items serving as indicators). The model fitted the data well. Although – as would be expected for large samples - the chi square was significant, the more important fit indices confirmed good fit, χ^2 (34) = 64.23, $p < .001$; CFI = .97; RMSEA = .06. Standardized path coefficients were .34, $p < .001$ to counterfactual thoughts, and .36, $p < .001$ to donations. Most importantly, an analysis with 200 bootstraps revealed that the indirect effect (.12) was significant, as the 90% confidence interval did not contain zero (CI = .06 to .18).

Further evidence for the independence of the effects of counterfactual thoughts and empathy comes from two regression analyses. In the first one, donations were predicted from only counterfactual thoughts ($\beta = .32$, $p < .001$), and in the second one from counterfactual thoughts ($\beta = .18$, $p < .01$) and empathy ($\beta = .47$, $p < .001$). The fact that the effects of counterfactual thoughts remain significant even when confirming empathy further underline their importance.

Study 5

Method. This study aimed to replicate the findings of study 4 for hypothetical proximity; however this time for greater experimental control fictitious rather than real events were used. Sixty students at a London university were approached on and around campus and participated on a voluntary basis. The aim was for a sample size per cell of 30, and data collection was stopped once the target had been reached. The mean age was 26.75 years (38 females).

Participants were randomly assigned to one of two conditions. They were asked to think about either an island which was either an attractive or an unattractive travel

destination. Hence, manipulating desire to visit the place tapped into 'hypothetical proximity', which is higher for attractive locations. 'Hypothetical proximity' was thus a between participants factor with two levels.

All participants were told about a Caribbean island with beautiful climate and idyllic beaches, which had however fallen prey to a recent earthquake and tsunami, causing huge losses in terms of live, and tremendous damage. Victims of the event were reported to need urgent support.

Moreover, half the participants were told that the island was a great tourist destination with excellent tourist infrastructure, making staying there fun. The other half were told that the island was not a good tourist destination due to a total lack of tourist infrastructure, making staying there stressful.

Following this description were the three items to measure counterfactual thoughts (1 = *low counterfactuals* to 7 = *high counterfactuals*; α = .93).

To measure donation proclivity, participants responded to six items asking for their willingness to donate to the victims of the event, to the Caribbean victims specifically, and to tourist victims specifically (1 = *not at all* to 7 = *very much*; α for the total scale = .90).

Results. To test whether 'hypothetical proximity' as manipulated via the vignettes would impact on donation proclivity via counterfactual thought, a path model was specified with manipulated 'hypothetical proximity' as an exogenous variable predicting 'counterfactual thoughts', which in turn predicted 'donations'. The model fitted the data well, χ^2 (1) = .22, ns; CFI = .99; RMSEA = .001. Standardized path coefficients were .24, $p < .05$ to counterfactual thoughts, and .35, $p < .01$ to donations. The R^2 for donations was .07. An analysis with 200 bootstraps revealed that the indirect effect (-.09) was significant, as the 90% confidence interval did not contain zero (CI = -.21 to -.01).

<div align="center">General Discussion</div>

At the time of writing, the world is witnessing yet another attack by IS on a European capital. European leaders are united in expressing their shock and concern, whilst simultaneously not focusing on the numerically much more impressive losses of human life in other parts of the world. Indeed, it seems people often dwell on relatively minor events at home rather than major disasters abroad. This contribution aimed to explain this disparity, and suggest how it might be addressed.

The findings show that counterfactual thoughts, i.e. potential donors thinking that they themselves could have suffered from a disaster if the circumstances had been a bit different, are positively associated with donation proclivity. Counterfactual thoughts themselves are in turn influenced by how proximal a potential donor is to the physical location where the negative event takes place. Moreover, actual proximity is not strictly necessary to induce counterfactual thoughts, but hypothetical proximity suffices. The pattern of results was consistent across different types of negative events, and for fictitious, imagined and real-life events, speaks to the generalizability of the pattern.

The findings make an important contribution for two reasons. Firstly, they explain why people are often moved to help if the suffering is happening right in front of their eyes, yet happily ignore death and suffering in locations far afield. This series of studies illuminates the psychological mechanisms behind this paradox, which has long fascinated philosophers (Singer, 2009). Secondly, the insight that hypothetical proximity is sufficient for triggering donation-inducing counterfactual thoughts has important practical implications. While it is clearly not possible to influence whether someone has visited a disaster area before the disaster occurred, hypothetical proximity, as well as counterfactual thoughts themselves, can be influenced through the design of donation appeals. Getting donors to imagine that they might have visited a location, presenting information which make the location appear as a more desirable holiday destination, as well as direct instructions to think

about how donors might have been victims themselves if the circumstances had been different, are all messages with the power to increase donations.

There is always room for improvement when conducting research. Future studies might, for example, incorporate a behavioral outcome measure. Although it has been found that self-reported donation proclivity are highly correlated with actual donations (Bekkers & Wiepking, 2011; Zagefka et al., 2011), including a behavioral measure would be interesting. Moreover, some (but not all) of the data presented was of correlational nature, which make inferences about the causal direction of observed associations difficult. A further limitation is that samples were not representative of the general population, to again inferences about the generalizability of observed effects can only be made with caution.

Of course, counterfactual thoughts are not the only factors influencing donations. A variety of variables have been found to influence monetary donations (Evangelidis & Van den Bergh, 2013; Hsee, Zhang, Lu, & Xu, 2013; Kogut & Ritov, 2007; Oppenheimer& Olivola, 2011) and prosocial behavior more generally (Dovidio, Piliavin, Schroeder, & Penner, 2006). Among them are psychological biases (Chandler, Griffin, & Sorensen, 2008; Kogut & Beyth-Marom, 2008; Slovic, 2007) and a preference for helping ingroup rather than outgroup members (Levine, Prosser, Evans, & Reicher, 2005). The present contribution adds one important piece to the puzzle. The previous neglect is surprising, given that – as outlined above – this concept seems to harbor the potential to inform simple and cost-effective intervention strategies to boost donations to those victims which would otherwise tend to be ignored.

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Footnotes

1. Results from the survey have been reported in Zagefka et al. (2011, study 2); however, results previously reported focused on different scales and questions. Thirteen participants of the original sample were not considered in the present analyses, because they reported to have visited the disaster location in the past, and the present study was interested in hypothetical rather than actual proximity. Two missing item scores were replaced with the scale midpoint, to enable AMOS to conduct bootstrap analyses.

Table 1: *The effect of proximity of participant location and accident location, Study 3*

		Participant residence location	
		A	B
		Counterfactual thoughts	
Accident	A	5.47 (1.64) a	4.69 (1.89) b
location	B	4.39 (1.79) a	6.11 (1.44) b
		Donations	
Accident	A	5.50 (1.27) a	4.93 (1.62) b
location	B	5.16 (1.48) a	5.85 (1.54) b

Note. *SD*s in parentheses. Means (row-wise) not sharing the same subscript are significantly different from each other at at least $p < .05$, with the exception of the penultimate row, where the difference is only marginally significant at $p < .09$.

Figure Captions

Figure 1

Counterfactual thoughts mediate the effect of proximity on donation proclivity

Proximity
(actual or
hypothetical)

Counterfactual
thought

Donation
proclivity