Members of Transgressor Groups Prefer Reparations to Come from Third Parties: An Extension of Interpersonal Findings on Moral Emotions

Maciej Sekerdej, Jagiellonian University (maciek@apple.phils.uj.edu.pl)

Roger Giner-Sorolla, University of Kent (rsg@kent.ac.uk)

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Abstract

Interpersonal research has shown that guilt motivates perpetrators to compensate victims at the expense of a third party, indicating that the emotion’s goal involves reparative outcomes rather than self-mortification. However, this motivation has yet to be tested in an intergroup context. Based on findings about ingroup wrongdoing, compensation was expected to draw primarily on shame rather than guilt. Three experiments (total N = 617) showed that participants only allocated more to the victims versus their own group when compensation was assigned from a third party's rather than their own group's resources. There was also evidence that shame was felt, and related to compensating victims, more strongly than guilt, whether at the expense of the ingroup or the third party.

Keywords: shame, guilt, moral emotions, prosocial behaviour, intergroup relations
Members of Transgressor Groups Prefer Reparations to Come from Third Parties: An Extension of Interpersonal Findings on Moral Emotions

Although self-critical emotions such as guilt and shame are not pleasant, they can at times increase prosocial behaviour. Experimental studies have shown that guilt feelings in particular increase cooperation between persons (de Hooge et al., 2007; Nelissen, Dijker et al., 2007; Regan et al., 1972), promote ethical behaviour in economic decisions (Cohen et al., 2012), and motivate people to compensate for their own wrongs (Yu et al., 2014; Zeelenberg & Breugelmans, 2008).

More recent studies, however, have shown that the prosocial consequences of interpersonal guilt do not always entail taking a personal disadvantage, and may end up displacing rather than alleviating wrongs on a larger scale (de Hooge et al., 2011). In these studies, induced guilt motivated repairing the harm done to the victim. But, if perpetrators had an opportunity to compensate the victim at the expense of others, they willingly took it, in preference to giving compensation from their own resources. In other words, prosocial actions motivated by guilt focused on the victim rather than on the larger picture, without the necessity of self-deprivation from paying reparations personally. An action that remedies one injustice merely to alleviate guilt could thus plausibly create another injustice.

Because guilt often involves self-punishment (Griffin et al., 2016; Vel-Palumbo et al., 2018), it may seem at first glance that repayment without suffering would not be the preferred response to guilt. Even if self-punishment depletes one’s own resources, it may be chosen to send a signal that one is a morally motivated member of the community. But instead, de Hooge and colleagues showed that self-sacrifice is often passed over when restitution can be made at another’s expense. Thus, the goal of guilt in this context was revealed to be compensation of the victim by any means, rather than self-mortification per se.

Our main question of interest in the present research was whether this preference for third-party restitution, until now only demonstrated in interpersonal contexts, could also be
shown in collective situations involving the rights and wrongs of nations. Emotions can be felt on an intergroup level when a person appraises a collectively self-relevant situation involving larger groups, such as nations (Bonnot & Krauth-Gruber, 2018; de Rivera et al., 2007; Doosje et al., 1998; Reysen et al., 2014). It is therefore possible that, in an intergroup situation of historical or ongoing injustice perpetrated by one’s own group, people would likewise prefer to compensate the victim group at the expense of a third party, when given an opportunity. Such a finding would be particularly relevant to international situations in which allied states or transnational groups, such as the European Union or United Nations, can relieve a perpetrator nation of the costs of compensation.

**Shame as a prosocial agent in intergroup context**

Our secondary question of interest asked which emotions in particular might be felt most strongly and predict behaviour in such a group-based situation. De Hooge et al. (2011, Experiment 4) found that third-party compensation followed an induction of guilt but not one of shame. Shifting contexts from personal to group-based culpability, however, there is reason to believe that shame would take on more importance than guilt. This prediction follows from the literature on shame in intergroup reconciliation and prosocial attitudes.

Overall, shame has been identified as an individual prosocial motivator, but not as consistently as for guilt. Many findings suggest that, for individuals, shame can fuel avoidance tendencies rather than reparation (e.g., Tangney, 1995; Tangney & Fischer, 1995; Wicker et al., 1983). Nevertheless, shame can also motivate people to act prosocially (Gausel et al., 2017; Gausel et al., 2012; Goldberg, 1991), and enhance social commitment (de Hooge et al., 2008). The prosocial versus antisocial consequences of shame may depend on such factors as the cultural value placed upon shame (Sheikh, 2014) and the possibility to take effective action (Leach & Cidam, 2015).
We suggest that shame is also more viable as a morally relevant emotion when felt in a group versus individual context. A retrospective analysis by Nelissen et al. (2013) argued that guilt is more likely to motivate prosocial behaviour in a context of direct reciprocity, when it is likely that the victim and perpetrator will meet again. Shame, on the other hand, is more likely to motivate prosocial behaviour in indirect reciprocity, when it is much less likely that the victim and perpetrator will meet again. Indirect reciprocity is thus more characteristic of the intergroup context, in which the approval of a relevant audience, but not necessarily of specific victims, is sought. Another line of research has shown that in intergroup contexts, when negative behaviour is exposed to other groups triggering collective blame (in terms of collective guilt and shame, this time treated as a single factor), group members behave more prosocially towards outgroup members (Kardos et al., 2019). However, if an individual, as part of a nation-level ingroup, sees a collective failure in reciprocity to another outgroup by harming or disadvantaging it, shame would play an even larger role than guilt, because the people harmed are even more remotely and indirectly connected to the individual.

Indeed, studies of emotions in social context show this predicted link between shame and higher-level social relations. Lickel et al. (2005), in studies of vicarious guilt and shame for another person’s wrongdoings, showed that people feel guilty when they have a highly interdependent association with the perpetrator, but felt ashamed when the perpetrator’s actions were relevant to the social identity that they shared with him or her, and could tarnish the identity’s image. In another study, Johns et al. (2005) found that feeling vicarious shame was associated with stronger ingroup identification: participants highly identified with US nationality felt more ashamed at examples of US anti-Arab prejudice.

Research on collective emotions felt towards the wrongdoing of one’s own larger group (e.g., nation) also tends to find that shame is both more prevalent and more effective than guilt (Rees et al., 2013; Shepherd et al., 2013a). Some studies show that shame lends
stronger support than guilt does to collective actions against a prospective ingroup transgression (Shepherd et al., 2013b). Also, higher expectations and satisfaction result from perpetrators’ expressions of shame vs. guilt among victim group members (Giner-Sorolla et al., 2008; Kamau et al., 2013). Moreover, in the national context, shame has turned out to be stronger than guilt in instigating support for collective political actions aimed at unjust conflict (Iyer et al., 2007), collective apology and victim compensation (Allpress et al., 2010), and motivation for ingroup change (Gausel & Brown, 2012).

Furthermore, shame has also been shown to play an important role in shaping reparative attitudes for the damage done to others. For example, it has been found that both collective guilt and shame are associated with support for reparations, although the underlying motivations were somewhat different: the effects of shame were mediated by self-pity and empathy for the outgroup, while the effects of guilt were mediated by empathy, but not self-pity (Brown & Čehajić, 2008). Notably, in other intergroup research, guilt predicted stable, longitudinal reparation attitudes, while shame predicted rather short-term, cross-sectional prosocial tendencies (Brown et al., 2008). In conclusion, these authors speculated that shame leads people to “take the path of least resistance” to the goal of improving the ingroup’s reputation. This prediction in particular further leads us to expect that group members, when reminded of responsibility for collective wrongs, would prefer reparations to be paid by a third party. Avoiding the depletion of ingroup resources by using another entity’s resources would be consistent with the “path of least resistance” typical of intergroup shame.

The present research

To restate, this research tested two hypotheses:

**Hypothesis 1:**
As in interpersonal research, perpetrator group members will be more strongly motivated to support reparative actions at the expense of a third party, rather than sending a signal at their own group’s expense, when the situation allows.

**Hypothesis 2:**

In the intergroup context, prosocial behaviour toward victims regardless of the source of funds will be related to ingroup-critical emotions, and where these can be distinguished, mainly to shame rather than guilt. This can be shown in two ways:

a. There should be higher mean levels of shame versus guilt, showing shame to be the predominant feeling. This advantage of shame should be especially strong in conditions where the ingroup was responsible for a misdeed, showing sensitivity to ingroup-caused wrongs.

b. Reparations funded by an outgroup, should be correlated to levels of moral emotions just as much as the literature has shown for reparations funded by the ingroup, especially when the ingroup is responsible.

We conducted three experiments, the first two in the context of Polish collective responsibility for contemporary injustices, and the third in the context of US collective responsibility for military intervention in the Dominican Republic. In Experiment 1 we show initial evidence that ingroup members are more motivated to compensate outgroup victims if provided with the opportunity to use someone else’s resources, drawing on a larger collective – the resources of the European Union. We also show that collective emotions still play a role in these motivations, but that there is a more prominent role for shame rather than guilt. In Experiment 2 we replicated those findings and extended them to a fuller experimental design. Experiment 3 further extended the findings, modelled after Experiment 2 but using a United States sample and issue, and the United Nations as the third-party option.
Experiment 1

Method

Participants and design

The participants were 140 Polish citizens (103 female, 37 male) who were recruited via community advertisements and social portals (September 2016). Their age ranged from 18 to 56 years ($M = 25.31, SD = 4.94$). All participants signed a written informed consent form before starting the experiment. Sample size was determined prior to analysis.

For analyses involving the comparison of guilt and shame, the design was mixed factorial, 2 (Condition, between: EU vs. Polish source of reparations) x 2 (Emotion, within: guilt vs. shame). For analyses involving distribution of compensation, the design was mixed factorial, 2 (Condition, as before) x 3 (Compensation Recipient, within: Poland, victims, global institutions).

In sensitivity power analyses, the emotion design with $N = 140$ had 80% power to detect a medium effect size of $f = .24$. The compensation design had 80% power to detect a medium-to-small effect size of $f = .19$ based on the nonsphericity correction factor (epsilon) in the data, which was .91 (nonsphericity being relevant only to a design with 3 or more levels in a factor). All data reported in the paper along with Supplemental Material are made publicly available at the Open Science Framework, https://osf.io/ag2dv/?view_only=d65f6434d510443ba2990c01cbda4e35

Procedure

The experiment took place online. Participants were asked if they would like to fill out a questionnaire on social relations. Having given informed consent, participants read a short newspaper article, ostensibly sourced from Polish Press Agency (see Supplemental Material). The article gave an account of the situation of refugees in Poland, describing Poles’ negative opinions on refugees and some discriminatory acts against them. The text was followed by
measures of guilt, moral shame, and image shame. Finally, the participants were asked to distribute money, ostensibly provided by Poland or the European Union, depending on condition.

**Materials**

The measures of group-based shame and guilt were adapted from Allpress et al. (2014). Participants indicated on scales ranging from 1 (strongly disagree) to 6 (strongly agree) how much they agreed or disagreed with the statements.

These items distinguish between a more internalized “moral shame” and a more externally concerned “image shame” felt toward an ingroup that has committed intergroup transgressions. In two out of three studies in Allpress et al. (2014), moral shame (e.g., believing that the group is fundamentally bad as a result of the misdeeds) related positively to support for compensation and apology, while image shame (e.g., believing that the group looks bad to others as a result of the misdeeds) had a negative or null relation to compensation and apology, controlling for moral shame. These findings initially suggested to us that moral shame items, if found to be statistically distinct from image shame, could more specifically relate to support for compensation from third parties as well as one’s own group.

**Moral Shame** was measured by 3 items: “I do feel ashamed to be Polish for the way we have treated other people,” “I feel ashamed for the opinions about immigrants uttered by Polish people, because they are immoral” and “I feel ashamed for the damage resulting from the attitudes of Poles towards immigrants” ($M = 3.63, SD = 1.45, \alpha = .87$).

**Image Shame** was measured by 3 items: “I feel disgraced because the behaviour of Polish people toward immigrants has created a bad image of Poland among other EU countries,” “I feel humiliated when I think of how Poland is seen negatively by the rest of the world for how it has treated immigrants,” and “To think how Poles are seen for their treatment of immigrants makes me feel ashamed” ($M = 3.55, SD = 1.50, \alpha = .90$).
Guilt was measured by 3 items: “I feel guilty for the manner in which Poles have treated immigrants,” “Even if I have done nothing bad, I feel guilty for the behaviour of Poles in this situation” and “I feel guilty for the bad living conditions of immigrants” ($M = 2.51$, $SD = 1.32$, $\alpha = .93$).

Because the two shame variables were correlated so highly as to be almost indistinguishable ($r = .79$), and had very close means, in further analyses moral and image shame were collapsed into one variable, shame ($M = 3.59$, $SD = 1.40$, $\alpha = .93$).

Compensation task. Participants were given three spaces to fill in. They read: “Because of the current wave of immigrants, the European Union [Polish government] assigned € 1,000,000 to be allocated to three purposes. Please write what percent of this sum you would give to: (1) victims (the refugees that experienced harm from Poles); (2) Poland, to establish a special fund to secure future financial obligations; (3) Global institutions that help refugees.”

Results and discussion

To first test the main hypothesis in the novel intergroup setting, we ran a mixed model 2 x 3 ANOVA (Compensation Source, between: Poland vs. EU x Recipient, within: victims vs. Poland vs. global institutions).

Descriptive statistics for money distribution to victims, Poland, and global institutions in each source condition can be seen in Table 1. The main effect of source condition was not significant $F(1, 138) = 0.37, p = .55, \eta^2 = .003$, but we found significant effects of recipient $F(2, 138) = 6.84, p < .01, \eta^2 = .05$, and a significant interaction between recipient and compensation source, $F(2, 138) = 8.97, p < .001, \eta^2 = .06$. As expected, pairwise comparisons within the estimated marginal means test showed that when the money came from the EU vs. Poland, participants gave significantly more to the victims ($M = 35.53$, $SE = 2.41$ vs. $M = 24.29$, $SE = 2.45$, $p = .001$, Cohen’s $d = .55$), suggesting that ingroup members
were willing to pay off people the ingroup has harmed, but would rather do it at someone else’s expense. By the same token, when the money came from Poland vs. EU, participants gave significantly more to Poland ($M = 47.61, SE = 3.01$ vs. $M = 32.65, SE = 2.96, p = .001$, Cohen’s $d = .60$); the amount of money given to global institutions did not differ across conditions ($M = 31.80, SE = 2.32$ vs. $M = 28.07, SE = 2.36, p = .26$, Cohen’s $d = .19$).

Overall, in the EU condition, the distribution of money between Poland, victims and global institutions was not different ($ps$ between means from .31 to .86). However, when the money came from Poland, participants kept significantly more for Poland than they gave either to victims or to global institutions (all $ps < .001$). Note that in this situation, allocation of money to victims and Poland was not completely confounded, due to the third option of global institutions. But due to the nature of the task, there would of course be a natural inverse relationship between money given to one recipient and another.

Next, we ran a mixed model $2 \times 2$ ANOVA comparing the two self-conscious emotions of interest (Compensation Source, between: Poland vs. EU x Emotion, within: Guilt vs. Shame). This revealed that participants, having all read the text that put their ingroup in a bad light, felt shame more strongly than guilt, $M = 3.59$ vs. $M = 2.51$, $F(1, 138) = 107.36, p < .001, \eta^2_p = .43$. However, the overall level of emotions was not significantly different between conditions, $F(1, 138) = 0.25, p = .62, \eta^2_p = .002$, and the interaction was not significant, $F(1, 138) = 2.50, p = .12, \eta^2_p = .02.$

Second, we checked the correlations between shame, guilt, and the compensation outcomes, that is, the percent of money given to the victims, Poland and global institutions in each condition (see Table 2). When the EU was paying, shame correlated positively with the

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1 We repeated the same analyses for image and moral shame separately obtaining similar results, respectively, $F(1, 138) = 0.39, p = .53, \eta^2_p = .003$ and $F(1, 138) = .12, p = .73, \eta^2_p = .001$ (condition) and $F(1, 138) = 2.60, p = .11, \eta^2_p = .02$ and $F(1, 138) = 1.77, p = .19, \eta^2_p = .01$ (interaction).
percentage of money assigned to victims, and significantly more strongly than guilt did; test between correlations, $t(68) = 2.49, p = .02$. Also when the EU was paying, shame correlated negatively with money assigned to Poland and marginally more strongly than guilt did, $t(68) = 1.90, p = .059$. When Poland was paying, shame also correlated more strongly than guilt with the money assigned to victims, $t(66) = 2.18, p = .03$, but there was no difference between shame and guilt in (negatively) predicting the money given back to Poland, $t(66) = 0.85, p = .39$. Overall, regardless of the source, shame more so than guilt was associated with intention to pay back victims.

In summary, Experiment 1 showed that that group members were motivated to compensate victims harmed by their ingroup, but they preferred to do it while avoiding strain on ingroup resources, by calling on a superordinate group to pay. Indeed, if another entity was paying, they supported paying the victims more than if the reparations would have been paid from their own group resources. However, even when the other entity was paying, they still decided to keep a decent share for their own group, while also allocating a similar sum to global institutions described as helping refugees.

The situation changed when reparations had to be paid from the group’s own resources. Here the group members decided to keep a plurality of the money for the ingroup. The rest was distributed approximately equally between the victims and the third party (global institutions) which was described as ultimately helping refugees in general. Such a distribution suggests that when group members are deprived of the possibility to use external resources and forced to rely on their own, they are less prone to choose the reparation option.

Finally, in this “indirect reciprocity” context (Nelissen et al., 2013), shame more so than guilt was related to reparative decisions. Levels of shame were higher overall than guilt, against the background of ingroup wrongdoing. Moreover, shame, significantly and more
strongly than guilt, was related to assigning more money to victims in both conditions, and less money to the ingroup in the condition where the EU paid.

In Experiment 2 we replicated these results in a fuller experimental plan. We added a between-participants factor that introduced control conditions in which the ingroup was not responsible for wrongdoing, to test whether moral emotions would play a similar role. If the preference for others to pay reparations were shown to be the same in both conditions, this would further clarify that the effect simply consists of people applying their selfishness even to situations where they are collectively responsible. This would mean that heightened responsibility did nothing to encourage people to punish the ingroup, above and beyond helping the victims. However, if we were to observe a relative increase in using third-party vs. own resources when group responsibility was not salient, this would show that there was some tendency for reparation preferences to reflect collective self-sanctioning.

Further, in conditions without ingroup responsibility, we expected no link between self-critical emotions and outgroup giving, unlike in Experiment 1 when all participants read about ingroup responsibility. This is because, without the involvement of the ingroup as perpetrators, there would be no reason for guilt or shame to motivate any kind of compensation.

**Experiment 2**

**Method**

*Participants and procedure*

The participants were 129 Polish students (110 female, 37 male) recruited via community advertisements and social portals. Their age ranged from 18 to 30 years ($M = 21.21$, $SD = 2.29$). All participants signed a written informed consent before starting the experiment. The design was 2 (Responsibility: Ingroup Responsibility vs. Control) × 2 (Compensation Source: Poland vs. European Union) between-subjects, to which could be
added an additional within-subjects variable as in Experiment 1, compensation recipient (victims, Poland, global institutions). In a sensitivity post-hoc power analysis, our design had 80% sensitivity given the observed nonsphericity correction of .84, to detect a medium-sized effect (f = .21) smaller than the Condition x Recipient interaction in Experiment 1 (f = .25, converted from partial eta-squared = .06).

**Manipulation**

In the “ingroup responsibility” experimental condition the participants read a newspaper article (ca. 1500 words), ostensibly sourced from a Polish press agency, that gave an account of the situation of refugees in Poland, including Poles’ negative opinions on refugees and descriptions of discriminatory acts against them. In the “neutral” control condition the participants read an article of the same length (based on excerpts retrieved from Eurostat, 2018), attributed to the same press agency, that reported general statistics on migration in Europe (see Supplemental Material). The text was concerned with different European countries, including Poland, and was neutral in tone. Both texts were followed by the measure of emotions towards the situation of immigrants in Poland (manipulation check), and the other dependent variables specifically measuring guilt, moral shame and image shame. Finally, as in Experiment 1, the participants were asked to distribute money coming either from Poland or the European Union among the victims, Poland, and global institutions.

**Materials**

Following the manipulation of Ingroup Responsibility, we measured on a 5-point scale 10 emotions towards the situation of immigrants in Poland, six negative: regret, guilt, disgust, shame, anger, and embarrassment; and four positive: rapture, happiness, pride, and enthusiasm.

More specific emotions were measured by the same items as in Experiment 1 on six-point scales ranging from 1 (strongly disagree) to 6 (strongly agree): *Image shame* (M = 3.23,
$SD = 1.67, \alpha = .95$), Moral shame ($M = 3.49, SD = 1.56, \alpha = .89$) and Guilt ($M = 2.73, SD = 1.53, \alpha = .94$). The distribution task was also the same as in Experiment 1 and came last.

**Results and discussion**

To again test the main hypothesis about compensation, we conducted a mixed model 2 x 2 x 3 ANOVA (Responsibility, between: Ingroup Responsibility vs. Control; x Compensation Source, between: Poland vs. EU; x Recipient, within: victims vs. Poland vs. global institutions). The main effects of responsibility, compensation source and the interaction between them were non-significant, $F(1, 125) = 1.17, p = .28, \eta_{p}^2 = .009$, $F(1, 125) = 1.22, p = .27, \eta_{p}^2 = .01$ and $F(1, 125) = 0.70, p = .40, \eta_{p}^2 = .006$. Moreover, exactly as in Experiment 1 we found a significant main effect of recipient, $F(2, 125) = 8.79, p < .001, \eta_{p}^2 = .07$, and a significant interaction between recipient and compensation source, $F(2, 125) = 7.15, p = .001, \eta_{p}^2 = .05$. The three-way interaction between ingroup responsibility, compensation source, and recipient turned out to be non-significant $F(2, 125) = 1.01, p = .37, \eta_{p}^2 = .008$.

As expected, pairwise comparisons within the estimated marginal means test showed that when the money came from the EU vs. Poland, participants gave significantly more to the victims ($M = 41.60, SE = 2.34$ vs. $M = 28.55, SE = 2.29, p < .001, \text{Cohen’s } d = .70$), which confirmed the findings from Experiment 1. Similarly, when the money came from Poland vs. EU, participants gave more to Poland ($M = 41.62, SE = 2.80$ vs. $M = 34.43, SE = 2.87, p = .075, \text{Cohen’s } d = .36$); the amount of money given to global institutions did not differ across conditions ($M = 28.53, SE = 1.90$ vs. $M = 24.13, SE = 1.95, p = .11, \text{Cohen’s } d = .29$).

Overall, in the EU condition victims received a larger amount of money than Poland received (although not significantly, $p = .14$). In turn, when the money came from Poland, participants kept significantly more for Poland than they gave both to victims and global institutions (all $ps < .01$).
Specifically, pairwise comparisons between the money assigned to victims and Poland in all four conditions of the 2x2 (Responsibility, Ingroup Responsibility vs. Control x Compensation Source, Poland vs. EU) design revealed that the only condition where victims received substantially more money than Poland was the combination where Poles were described as responsible for the outgroup’s suffering and the money came from the EU (Table 3). The preference for victims in this condition was marginally significant, \( p = .052 \).

The findings replicated Experiment 1’s findings in the responsibility conditions. However, they also showed a weaker source effect in the control conditions, where Poland had been described with no particular responsibility, but participants still relatively preferred to help outgroups with EU, not Polish, money. To further clarify the predicted motivational differences between these giving effects in the responsibility and control conditions, we looked at mean levels of emotions and their correlation with the giving variables.

All negative emotions were significantly higher, and all positive emotions were significantly lower, in ingroup responsibility conditions than in control conditions (see Table 4).

Tables 5 and 6 show correlations among the analyzed variables by condition. Due to overly high correlations between image shame, moral shame, and guilt ranging from .74 to .87 (that is, showing an overlap of over 50% of variance), it was not considered advisable to look at them separately in correlational analyses, so for those purposes they were collapsed into one variable, \textit{shame/guilt} \( (M = 3.15, SD = 1.47, \alpha = .92) \). However, because correlations are based on standardized scores, mean differences between (for example) shame and guilt can exist in spite of these overly high correlations, and so could be compared in a repeated-measures ANOVA.

To test this effect on the means we conducted a mixed model ANOVA, 2 (Responsibility, between: Ingroup Responsibility vs. Control) x 2 (Compensation Source,
between: Poland vs. EU), x 2 (Emotion, within: Guilt vs. Shame, moral and image collapsed into one measure, as in Experiment 1). The main effect of responsibility was marginally significant \( F(1, 125) = 3.60, p = .06, \eta_p^2 = .03 \), the trend being to feel more guilt as well as shame when the ingroup was responsible, in line with findings from previous research showing higher negative ingroup-focused emotions when collective responsibility is accepted. The effect of source, as well as the interactions, were non-significant. Nevertheless, the difference between felt shame and guilt (within-subject test across all conditions) turned out to be significant \( F(1, 125) = 44.57, p < .001, \eta_p^2 = .26 \). As in Experiment 1, shame was the overall stronger emotion than guilt.

For emotion correlations, shame and guilt were averaged into one index. In the responsibility condition, shame/guilt was correlated strongly both with the money given to victims (positively) and the money given to Poland (negatively), which confirms the overall important role of moral emotions in reparative actions. This was true regardless of the source of funds, supporting the idea that compensation from other groups’ money is also related to guilt and shame. In control conditions, moral emotions were not related to money distribution to victims, supporting the idea that responsibility is necessary to motivate compensation via emotions. The negative correlations among distribution scores, as in Experiment 1, generally reflect the zero-sum nature of the task.

**Experiment 3**

To extend these findings to a different intergroup context and participant population, we conducted a conceptual replication of Experiment 2 among United States (US) citizen participants. This new experiment also tightened the manipulation of ingroup responsibility by eliminating some elements in the Experiment 2 manipulation that might have introduced confounds not relevant to collective responsibility, such as the appeal to empathy for the refugees in the responsible condition, or the contrast between personal narratives in the
responsible condition and dry statistics in the control. Also, we preregistered our analytic method and increased the statistical power of this study relative to Experiment 2, nearly tripling the number of participants in order to reach an a priori power of 90% to detect the smallest key effect found in Experiment 2. Because of the higher power, this study had the potential to more definitively follow up on effects that were supported in Experiment 2, such as the tendency for outgroups to be assigned more compensation than ingroups only in the responsibility/third-party source condition, and the tendency to show more shame than guilt primarily in the responsibility condition.

The issue in this new experiment was the history of US military interference in the democratic politics of the Dominican Republic (DR). In the responsibility condition participants read about the history of US military intervention to overthrow elected leaders in the DR on two occasions in the 20th century. In the control condition they also read about a threat to democracy in the DR, but this was presented as a description of internal corruption in DR politics, with no mention of US intervention. The reparation option in the funding task was described as contributions from either the US or the United Nations (UN) to help the DR stabilize its democratic institutions, with the alternatives being funding of US interests in the Caribbean (equivalent to the money going to Poland in Experiments 1-2) and funding democratic institutions in other parts of the world (equivalent to the money going to international institutions in Experiments 1-2). Design and analyses of the dependent variables were similar to Experiment 2, except that we pre-registered a more inclusive approach to the emotion measures in which the “shame”, “guilt” and near-synonym items from the single-item emotion questionnaire were included together with the more group-based emotion items as indices of shame and guilt.
Method

Participants and procedure

Participants were recruited via the Amazon Mechanical Turk crowdsourcing platform, with further selectivity via CloudResearch filtering of invalid IP addresses. The design and analysis plans for the study were preregistered at https://aspredicted.org/blind.php?x=vb22wc. The sample was limited to adult U.S. citizens with a past study approval rate of 95% or more from 50 or more studies. The preregistered analysis for 90% power to detect partial eta squared of .03 (smallest effect of interest found in Experiment 2) in the study’s design yielded an a priori sample size of 344. The design, as in Experiment 2, was 2 (Responsibility: Ingroup Responsibility vs. Control, between-subjects) × 2 (Compensation Source: United States vs. United Nations, between-subjects) × compensation recipient (Dominican Republic, United States, or international aid fund; within-subjects).

The total sample of participants who filled out at least one question was 408. Having excluded people, as pre-registered, who failed either of the attention checks (e.g., “I feel that this is a question to check attention and I should answer agree.”), or completed the study under 90 seconds, the final sample consisted of 348 participants (48.3 % female, 2 persons indicated non-binary identities and 2 preferred not to say; mean age = 41.89.8, SD = 11.9). All participants signed a written informed consent before starting the experiment.

Manipulation

In the “ingroup responsibility” experimental condition the participants read a short, four-paragraph text telling of historical relations between the Dominican Republic (DR) and the United States (US), that described the responsibility of the US for anti-democratic military and political interventions in the DR. The participants were instructed that, having read the text, they would be asked a number of questions about their reaction to the situation and to hypothetical actions following it. In the control condition the participants read a text of about
the same length that dealt with internal corruption in the Dominican Republic without
implicating the United States (see Supplemental Material). Both texts were followed by the
measure of emotions towards the situation in the Dominican Republic, and a short
questionnaire on guilt, moral shame and image shame. Finally, as in Experiments 1 and 2, the
participants were asked to distribute money coming either from the United States or the
United Nations among the Dominican Republic, the United States and a general international
aid fund.

**Materials**

Following the manipulation of Ingroup Responsibility we measured, on 5-point scales,
10 emotions towards the situation in the Dominican Republic, six negative: regret, guilt,
disgust, shame, anger, and embarrassment; and four positive: joy, happiness, pride, and
enthusiasm. Next, as in Experiment 1 and 2, participants filled in a short questionnaire
including nine items on image shame, moral shame and guilt, where two attention check
questions were embedded. The *distribution task* was also the same as in Experiment 1 and 2,
and came last. As preregistered, *shame index* was calculated from the means of “shame” and
“embarrassment” items and all 6 group-based shame items ($M = 3.04, SD = 1.32, \alpha = .96$),
and guilt index from the means of “guilt,” “regret” and all 3 group-based guilt items ($M =
2.72, SD = 1.26, \alpha = .92$). This was a slightly different plan from the method followed in
Experiment 2, in which only the group-based shame and guilt items were analyzed.

**Results and discussion**

To test the main hypothesis about source and responsibility, we conducted again a
mixed model 2 x 2 x 3 ANOVA (Responsibility, between: Ingroup Responsibility vs. Control;
x Compensation Source, between: UN vs. US; x Recipient, within: DR vs. US vs.
international aid fund). Similarly to Experiment 2, the main effects of responsibility and
source and the interaction between them were non-significant and close to zero. Moreover,
exactly as in Experiment 1 and Experiment 2 we found a significant main effect of recipient, $F(2, 344) = 20.86, p < .001, \eta^2_p = .06$, and a significant interaction between recipient and compensation source, $F(2, 344) = 12.05, p < .001, \eta^2_p = .03$, and this time also a significant interaction between recipient and responsibility, $F(2, 344) = 3.94, p = .02, \eta^2_p = .01$. The three-way interaction between ingroup responsibility, compensation source, and recipient again turned out to be non-significant $F(2, 344) = 1.42, p = .23, \eta^2_p = .004$.

As expected, pairwise comparisons between source conditions for each of the three funding recipients showed that when the money came from the UN vs. US (across responsibility conditions), participants gave significantly more to the DR ($M = 31.08, SE = 1.84$ vs. $M = 25.80, SE = 1.80, p = .041, \text{Cohen’s } d = .22$), which confirmed the findings from Experiment 1 and Experiment 2. Similarly, when the money came from the US vs. UN, participants gave more to US ($M = 35.96, SE = 1.94$ vs. $M = 22.11, SE = 1.99, p < .001, \text{Cohen’s } d = .53$). The amount of money given to the third-party international aid fund this time was larger when the money came from the UN vs. US ($M = 46.81, SE = 2.26$ vs. $M = 38.24, SE = 2.21, p = .007, \text{Cohen’s } d = .29$). Overall, in the UN condition the DR received significantly larger amount of money than the US ($p = .004$) received. In turn, when the money came from US, the participants kept significantly more for US than they gave to DR ($p = .001$); the difference between the amount given to US and the international aid fund was not significant ($p < .54$).

The next point of interest was whether these results were especially pronounced in the ingroup responsibility condition, reflecting the stacking effects of the two-way interactions and main effects. Specifically, pairwise comparisons between the money assigned to DR and US in all four conditions of the 2 x 2 design (Responsibility, Ingroup Responsibility vs. Control x Compensation Source, US vs. UN) revealed that the only condition where DR received more money than US was the combination where Americans were perpetrators, and
the money came from the UN (Table 7). The preference for DR in this condition was this time highly significant, \( p < .001 \), while in all other conditions the trend was for the US to be assigned more money than DR. Put another way, when the US was presented as responsible for the DR’s problems and had to pay reparations itself, the proportion of money assigned to the DR (\( M = 26.72\% \)) was quite similar to the amount of money assigned when it was not presented as responsible for the DR’s problems (\( M = 26.41\% \)). Only when the UN was paying, and the US was responsible was the amount appreciably more generous (\( M = 34.22\% \)).

We conducted a maximum likelihood factor analysis as part of the pre-registered plan to see whether the different shame items separated out from each other and from guilt. The analysis entered the single-word items shame, guilt, embarrassment and regret, and all 9 of the detailed shame/guilt items. One factor emerged as clearly dominant with no others having eigenvalue greater than 1, and this had eigenvalue = 9.27, accounting for 71.3\% of variance, and including all items (loadings > .50). Looked at another way, the preregistered shame index (mean of “shame” and “embarrassed” items and all 6 detailed shame items) correlated with the preregistered guilt index (mean of “guilt,” “regret” and all 3 detailed guilt items) at \( r = .87 \). As in Experiment 2 where similar conditions obtained, and again following the preregistered plan, we involved only the average of the shame and guilt indices (\( M = 2.88, SD = 1.25, \alpha = .97 \)) in all correlations (Tables 8 and 9). However, we were able to use the two separate index scores in analyses comparing their means, which would not be affected by the high correlation.

To test the comparative strength of shame and guilt means we conducted a mixed model ANOVA, 2 (Responsibility, between: Ingroup Responsibility vs. Control) x 2 (Compensation Source, between: US vs. UN), x 2 (Emotion, within: Guilt vs. Shame index). As in Experiment 2, the mean levels of shame were higher than guilt overall, \( F(1, 344) = \)
81.85, $p < .001, \eta^2_p = .19$. Also, the main effect of responsibility was significant $F(1, 344) = 66.95, p < .001, \eta^2_p = .16$, indicating more guilt as well as shame when the ingroup was responsible. The Emotion x Responsibility interaction, $F(1,344) = 13.50, p < .001, \eta^2_p = .04$, showed a greater advantage for shame over guilt in the responsibility condition ($M = 3.59$ vs. $M = 3.15$, mean difference 0.44) than in the control ($M = 2.45$ vs. $M = 2.27$, mean difference 0.18). Source did not show any significant main effects or interactions, all $p > .41$.

Tables 8 and 9 show correlations between shame/guilt and compensation amounts to each recipient, separately for the four conditions. As in Experiment 2, in the responsibility condition shame/guilt was correlated both with the money given to DR (positively) and the money given to US (negatively), which confirms the overall important role of moral emotions in these reparative actions. Likewise, the negative correlations among distribution scores generally reflect the zero-sum nature of the task. Unexpectedly, there were also significant correlations between shame/guilt and DR money assignment in the control conditions, possibly due to general awareness of unequal relations between the US and DR even when no specific US misdeed had been singled out.

**General Discussion**

The present research investigated whether fellow group members of perpetrators are more strongly motivated to engage in reparative actions if they have an opportunity to source the money for this purpose from a third party, as recently shown by de Hooge and colleagues in an individual context (de Hooge et al., 2011). Moreover, we predicted, that in the intergroup context “prosocial” behaviour, even at the expense of a third party, would be characterized by shame more so than guilt.

The findings confirmed our hypotheses. All three experiments demonstrated that when the negative behaviour of ingroup members towards a victimized group was made salient, and participants as ingroup members envisioned the opportunity to compensate the victims at the
expense of a third party, they allocated substantially more to the victims than when the money was assigned from their own group’s resources. It is worth noticing that they did this even though they were also allowed to allocate externally sourced money to the ingroup. Thus, it is not a mere case of maximizing outcomes for the ingroup. Besides, although there was a negative dependency among the targets, the presence of a third party (global institutions or an international aid fund) meant that giving to the outgroup was not exactly the same as holding back money from the ingroup. There appears to have been a guilt-and-shame-related motivation in both conditions to compensate victims, but participants found it easier to do when the money came from another entity than their own country.

Furthermore, we demonstrated that in this intergroup context, shame had overall a better case than guilt to be the emotion that motivated perpetrators to compensate the victims at the expense of the third party. First, shame in all experiments was felt more strongly than guilt. Second, in Experiment 1 where shame and guilt were statistically distinct from each other (unlike Experiments 2 and 3), shame showed stronger correlations with patterns of outgroup-supporting allocation regardless of where funds came from. These findings support the assumptions in Nelissen et al. (2013) that guilt is more likely to motivate prosocial behaviour in direct reciprocity whereas shame is more likely to motivate prosocial behaviour in indirect reciprocity. Given that the participant did not know the victims or third parties, and had little likelihood of meeting them face-to-face, they were more plausibly motivated by indirect reciprocity. In contrast to previous findings suggesting that shame had much to do with reputation management and self-pitying, which mediated reparation attitudes separately from empathy for the outgroup (Brown & Čehajić, 2008), we can surmise from these studies that shame might motivate repairing damage to victims regardless of whether the group itself is seen to take responsibility by paying from its own resources.
Both experiments that manipulated responsibility found that victims were given substantially higher amounts of compensation, compared to the ingroup, only if the ingroup was presented as responsible and a third party – not the ingroup itself – was paying. In Experiment 2, however, when the ingroup was not presented as responsible, people were also significantly more likely to use the third party’s money to pay the victims than to use ingroup money; in Experiment 3 the difference was non-significant but in the same direction (27.94% when the UN paid, 24.89% when the US paid). This raises the possibility that in Experiment 2, people could think that European Union was in fact responsible for the refugee crisis, more so than the United Nations bearing responsibility for the democracy crisis in the DR. Thus, shifting responsibility completely away from Poland and onto the EU could be taken as a possible explanation for why people in Experiment 2 would want to make the EU pay even without Polish responsibility.

Another way to see the outcomes is to note that greater giving to outgroup victims relative to the ingroup or a third party, as an effect of the responsibility manipulation, emerged only when the EU or UN supplied money for these reparations, and not when Poland or the US themselves had to. Although this outcome was not supported by significant three-way interactions, there is some support in the more detailed analyses: the only combination of factors that led to a significant simple giving pattern such that more was given to the victims than to the ingroup was when Poland and the US had responsibility, but the EU or the UN gave money, respectively. These findings, then, support the view that to increase help to victim groups, mere responsibility was not enough; there had to also be a lack of negative consequences, including no resource loss for the ingroup.

In any case, the findings suggest that shame specifically motivates ingroup members to support reparative actions (vs. withdrawal) when they are provided with “a good opportunity,” i.e., when the actions are not too risky (de Hooge et al., 2010), or can be done in
a cost-efficient manner (Nelissen et al., 2013). Moreover, they shed new light on literature suggesting that in the intergroup context shame leads the members of a perpetrator group to take actions aimed at improving the ingroup’s reputation at the lowest cost possible, or withdraw from the embarrassing situation (Brown et al., 2008). And indeed, when the money for victim compensation came from the ingroup’s resources the participants decided to keep the lion’s share of it for the group and pay substantially less to the victims, evidently choosing withdrawal rather than improving the group image through costly apology. However, we should also note that shame correlated with victim allocations about equally in conditions of responsibility, regardless of where the money came from. Shame in our studies thus looked more like a general motivator for reparation at a collective level when the ingroup is responsible, rather than an emotion that has a particular influence in situations where a collectively painless solution is available. Nevertheless, it is still an open question – calling for a repeated-measures study design – whether outsourcing reparation is just a cheaper solution, or actually has a different impact on alleviating shame or guilt.

While these findings refer to limited contexts of reparations for bad treatment of ingroup’s victims, we would expect them to generalize to similar group situations in which people have a similar understanding of shame and guilt. We should also note that minor context differences appear to have played a part in some differences between findings. For example, even though presenting the US as explicitly responsible increased reparation to victims and feelings of shame and guilt, we found correlations between those emotions and reparation tendencies to be significant even in the control, no responsibility condition. As mentioned, this may have been due to some participants being generally aware of the history of US intervention in Latin America and thus feeling some responsibility even for problems presented as internal to the DR. In the Polish manipulation, a parallel awareness of refugee
issues might not have been present, especially given the less parallel construction of those manipulations.

Our main caveat for any future research would be that the right topic is necessary to find these effects. That is, one would have to start with an issue that at least some participants would see as an example of ingroup wrongdoing, rather than an issue that arouses unanimous denial or defensiveness. By the same token, it would be worth measuring multidimensional group identification as a possible moderator of admittance or denial of the group wrongdoing. All the same, we think that once the bridge is crossed and ingroup members accept collective wrongdoing, they would find it a very easy detour to avoid the self-punishing aspect of reparations, and more gladly support paying with someone else’s money, than with their own.

References


https://doi.org/10.1037/a0012894
Table 1. Amounts of money assigned to victims, Poland, and global institutions in the two funding source conditions in Experiment 1. All figures are percentages of total amount.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Source</th>
<th>Victims</th>
<th>Mean</th>
<th>95% Confidence Interval</th>
<th>Poland</th>
<th>Mean</th>
<th>95% Confidence Interval</th>
<th>Global institutions</th>
<th>Mean</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td></td>
<td>Lower</td>
<td>Upper</td>
</tr>
<tr>
<td>source: EU</td>
<td>Victims</td>
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<td>30.76</td>
<td>40.31</td>
<td>32.65</td>
<td>26.77</td>
<td>38.51</td>
<td>31.80</td>
<td>27.21</td>
<td>36.39</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Poland</td>
<td>32.65</td>
<td>26.77</td>
<td>38.51</td>
<td>28.07</td>
<td>23.41</td>
<td>32.73</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global institutions</td>
<td>31.80</td>
<td>27.21</td>
<td>36.39</td>
<td>28.07</td>
<td>23.41</td>
<td>32.73</td>
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<td></td>
<td></td>
</tr>
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<td>source: Poland</td>
<td>Victims</td>
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<td>19.45</td>
<td>29.13</td>
<td>47.61</td>
<td>41.66</td>
<td>53.55</td>
<td></td>
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<tr>
<td></td>
<td>Poland</td>
<td>47.61</td>
<td>41.66</td>
<td>53.55</td>
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<td>23.41</td>
<td>32.73</td>
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</tr>
<tr>
<td></td>
<td>Global institutions</td>
<td>28.07</td>
<td>23.41</td>
<td>32.73</td>
<td>28.07</td>
<td>23.41</td>
<td>32.73</td>
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</tr>
</tbody>
</table>
Table 2. Experiment 1 correlations between shame, guilt, and percent of money given to the victims, Poland and global institutions, divided by the source of money: EU (above diagonal) and Poland (below).

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shame</td>
<td></td>
<td>.67**</td>
<td>.30*</td>
<td>-.28*</td>
<td>.02</td>
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<tr>
<td>2. Guilt</td>
<td>.49**</td>
<td></td>
<td>.07</td>
<td>-.10</td>
<td>.04</td>
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<tr>
<td>3. Money assigned to victims</td>
<td>.48**</td>
<td>.24*</td>
<td></td>
<td>-.58**</td>
<td>-.38**</td>
</tr>
<tr>
<td>4. Money assigned to Poland</td>
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<td>-.23+</td>
<td>-.72**</td>
<td></td>
<td>-.54**</td>
</tr>
<tr>
<td>5. Money assigned to global institutions</td>
<td>-.03</td>
<td>.07</td>
<td>-.03</td>
<td></td>
<td>-.68**</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01
Table 3. Pairwise comparisons between means of the money distribution to victims and Poland in the four conditions of Experiment 2.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Recipient</th>
<th>Mean</th>
<th>SE</th>
<th>Mean</th>
<th>SE</th>
<th>p</th>
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<td>victims</td>
<td></td>
<td></td>
<td>Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poles responsible/money from the EU</td>
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<td>3.29</td>
<td>32.50</td>
<td>4.03</td>
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<td>Poles responsible/money from Poland</td>
<td>28.49</td>
<td>3.24</td>
<td>38.85</td>
<td>3.40</td>
<td>.123</td>
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<tr>
<td>Control condition/money from the EU</td>
<td>37.42</td>
<td>3.34</td>
<td>36.36</td>
<td>4.09</td>
<td>.877</td>
<td></td>
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<tr>
<td>Control condition/money from Poland</td>
<td>28.61</td>
<td>3.24</td>
<td>44.39</td>
<td>3.97</td>
<td>.019</td>
<td></td>
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Table 4. Means of positive and negative emotions in ingroup responsibility and control conditions, Experiment 2.

<table>
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<tr>
<th>Emotions</th>
<th>Ingroup responsibility condition</th>
<th>Control condition</th>
<th>F</th>
<th>(\eta^2)</th>
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<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
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<tr>
<td>Negative emotions</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Regret</td>
<td>3.48</td>
<td>1.10</td>
<td>2.59</td>
<td>1.09</td>
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<tr>
<td>Guilt</td>
<td>2.55</td>
<td>1.26</td>
<td>1.90</td>
<td>1.12</td>
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<tr>
<td>Disgust</td>
<td>3.21</td>
<td>1.36</td>
<td>2.17</td>
<td>1.14</td>
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<td>Shame</td>
<td>3.25</td>
<td>1.36</td>
<td>1.98</td>
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<td>Anger</td>
<td>2.94</td>
<td>1.26</td>
<td>2.21</td>
<td>1.12</td>
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<td>1.33</td>
<td>2.03</td>
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<td>Positive emotions</td>
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<td>Rapture</td>
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<td>Happiness</td>
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<td>0.75</td>
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<td>Pride</td>
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<td>0.49</td>
<td>1.76</td>
<td>0.78</td>
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<tr>
<td>Enthusiasm</td>
<td>1.52</td>
<td>0.75</td>
<td>2.09</td>
<td>0.96</td>
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</table>

*\(p < .01\), **\(p < .001\)
Table 5. Experiment 2, ingroup responsibility condition: Correlations among shame/guilt, and percent of money given to the victims, Poland and global institutions, by the source of money: EU (above diagonal) and Poland (below).

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shame and guilt</td>
<td></td>
<td>.57**</td>
<td>-.52**</td>
<td>-.04</td>
</tr>
<tr>
<td>2. Money assigned to victims</td>
<td>.53**</td>
<td></td>
<td>-.87**</td>
<td>-.18</td>
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<tr>
<td>3. Money assigned to Poland</td>
<td>-.46**</td>
<td>-.65**</td>
<td></td>
<td>-.32</td>
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<tr>
<td>4. Money assigned to global institutions</td>
<td>.09</td>
<td>.17</td>
<td>-.60**</td>
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</table>

**p < .01
Table 6. Experiment 2, control condition: Correlations among shame, guilt, and percent of money given to the victims, Poland and global institutions, by the source of money: EU (above diagonal) and Poland (below).

<table>
<thead>
<tr>
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<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shame and guilt</td>
<td>.03</td>
<td>-.40*</td>
<td>.40*</td>
<td></td>
</tr>
<tr>
<td>2. Money assigned to victims</td>
<td>-.08</td>
<td>-.55**</td>
<td>.30</td>
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</tr>
<tr>
<td>3. Money assigned to Poland</td>
<td>-.04</td>
<td>.72**</td>
<td>-.63**</td>
<td></td>
</tr>
<tr>
<td>4. Money assigned to global institutions</td>
<td>.14</td>
<td>-.04</td>
<td>-.66**</td>
<td></td>
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</tbody>
</table>

*p < .05 **p < .01
Table 7. Pairwise comparisons between means of the money distribution (in percentage of $100 million) between Dominican Republic (DR) and United States (US) in the respective conditions in Experiment 3.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Recipient</th>
<th>DR</th>
<th>SE</th>
<th>US</th>
<th>SE</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td></td>
<td>Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>US responsible/money from UN</td>
<td></td>
<td>34.22</td>
<td>2.51</td>
<td>15.71</td>
<td>2.71</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>US responsible/money from US</td>
<td></td>
<td>26.72</td>
<td>2.54</td>
<td>34.36</td>
<td>2.74</td>
<td>.074</td>
</tr>
<tr>
<td>Control condition/money from UN</td>
<td></td>
<td>27.94</td>
<td>2.70</td>
<td>28.51</td>
<td>2.91</td>
<td>.900</td>
</tr>
<tr>
<td>Control condition/money from US</td>
<td></td>
<td>24.89</td>
<td>2.54</td>
<td>37.55</td>
<td>3.12</td>
<td>.003</td>
</tr>
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</table>
Table 8. Experiment 3, ingroup responsibility condition: Correlations among shame/guilt, and money given to the DR, US and international aid fund (IAF), by the source of money: UN (above diagonal) and US (below).

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shame and guilt</td>
<td>.27**</td>
<td>-.28*</td>
<td>-.06</td>
<td></td>
</tr>
<tr>
<td>2. Money assigned to DR</td>
<td>.39**</td>
<td>-.19</td>
<td>-.77**</td>
<td></td>
</tr>
<tr>
<td>3. Money assigned to US</td>
<td>-.31**</td>
<td>-.41**</td>
<td>-.47**</td>
<td></td>
</tr>
<tr>
<td>4. Money assigned to IAF</td>
<td>-.02</td>
<td>-.43**</td>
<td>-.65**</td>
<td></td>
</tr>
</tbody>
</table>

**p < .01
Table 9. Experiment 2, control condition: Correlations among shame/guilt, and money given to the DR, US and IAF, by the source of money: UN (above diagonal) and US (below).

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shame and guilt</td>
<td>.23*</td>
<td>-.20</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>2. Money assigned to DR</td>
<td>.22*</td>
<td>-.32**</td>
<td>-.47**</td>
<td></td>
</tr>
<tr>
<td>3. Money assigned to US</td>
<td>-.30*</td>
<td>-.25*</td>
<td>-.69**</td>
<td></td>
</tr>
<tr>
<td>4. Money assigned to IAF</td>
<td>.10</td>
<td>-.52**</td>
<td>-.70**</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05 **p < .01