Empathy and humanitarianism predict preferential moral responsiveness to in-groups and out-groups

Liz Redford

Kate A. Ratliff

University of Florida

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Abstract

The current research tests whether empathy—sharing others’ emotions—and humanitarianism—recognizing the moral worth of all people—each predict moral responsiveness toward others, but in ways that favor in-groups and out-groups, respectively. In Studies 1 and 2, empathy and humanitarianism differentially predicted preferential moral concern for in-groups and out-groups. In Study 3, humanitarianism predicted lower in-group-targeted prosociality, and greater out-group prosociality. In Study 4, empathy and humanitarianism predicted perceived moral obligation to in-groups and out-groups respectively. In Study 5, out-group obligation mediated between humanitarianism and allocations to out-group charities, and in-group obligation mediated between empathy and one of two in-group charities. In sum, empathy and humanitarianism are associated with preferential morality via group-based obligation, suggesting that morality could be extended by altering empathy, humanitarianism, or group processes.

Key words: empathy humanitarianism values prosociality morality group processes
Empathy and humanitarianism predict preferential moral responsiveness to in-groups and out-groups

In a 2006 commencement speech, Barack Obama implored graduates to confront their own and other Americans’ “empathy deficit”, and psychologists agree that empathy influences prosociality and morality. Obama also made a more specific appeal: to expand prosociality and a sense of moral obligation to people “half a world away”. But empathy may not be Obama’s—or psychologists’—best bet for moral concern that extends to all people. We propose that, while empathy advantages the in-group, a different psychological concept might better broaden prosociality to out-groups: humanitarianism, which explicitly affirms the moral worth of all people.

The current research proposes empathy and humanitarianism as complementary predictors of group-based helping. It proposes empathy—the tendency to share and respond to others’ emotional experiences—as a predictor of morally advantaging the in-group, and humanitarianism—care for the welfare of all people—as a predictor of morally advantaging the out-group, and proposes that these patterns stem from the differential senses of personal moral obligation associated with each construct. To examine this proposal, we test whether more empathic people are more morally responsive to and helpful toward in-groups because of their greater sense of personal moral obligation to in-groups, while people with greater humanitarian values are more morally responsive to and helpful toward out-groups because of their greater sense of moral obligation to out-groups. This complementary group-based approach to empathy and humanitarianism has the potential to balance and integrate findings in intergroup helping. And if empathy and humanitarianism work in these group-based ways, humanitarianism could be
a potential alternative or complement to empathy that could help overcome in-group favoritism, contributing to more equally distributed moral concern.

**Empathy and prosociality**

Affective empathy is a response to another person’s emotions: the capacity to share the person’s emotions or to feel emotionally aroused by those emotions or the person’s suffering (Batson & Ahmad, 2009; Decety & Cowell, 2014). In this paper, we use the term “empathy” to refer to dispositional affective empathy (as opposed to situation-specific, or other forms of [e.g., cognitive], empathy). Such empathic feelings are associated with interpersonal prosociality; for example, they predict donation quantity (Dickert, Sagara, & Slovic, 2011), and empathy training decreases bullying in primary schools (Şahin, 2012) and improves patient care among medical professionals (Riess et al., 2012). Empathy is an important correlate of, and likely contributor to, greater interpersonal prosociality and lower interpersonal aggression (for a review, see Eisenberg, Eggum, & Di Giunta, 2010). But as globalization increases opportunities for cross-group helping (e.g., foreign refugees and disasters; Zagefka & James, 2015), researchers and interventionists have focused not only on empathy’s interpersonal effects, but also on its intergroup effects (e.g., the Roots of Empathy project; Gordon, 2009; for reviews, see Batson & Ahmad, 2009 and Eisenberg et al., 2010). For example, inducing empathy for stigmatized targets (e.g., drug addicts) predicts improved attitudes toward the targets (Batson et al., 1997), and greater donations to helping agencies (Batson et al., 2002). In another study, White teachers’ experiences of empathic joy toward ethnic-minority students predicted better student outcomes and more positive teacher-student interactions (Pittinsky & Montoya, 2016).

**Empathy’s ingroup advantage.** But like the effects of other psychological constructs, the effects of empathy may be target-dependent. When not explicitly or instructionally directed
toward out-groups, the dispositional empathic tendencies that promote prosociality are most likely to be preferentially elicited by in-group members. Perhaps because of failure to detect and attend to out-group suffering (Batson & Ahmad, 2009), the lower perceived emotional complexity of out-groups (Cuddy, Rock, & Norton, 2007), or motivated avoidance of empathizing with out-groups (Zaki, 2014), in-group members have an advantage in evoking empathic responses (e.g., Vanman, 2016; Cikara, Bruneau, & Saxe, 2011). The in-group advantage appears in groups in competition (Bruneau, Cikara, & Saxe, 2015) or conflict (Zaki & Cikara, 2015), as well as in existing groups (e.g., university affiliation, Tarrant, Dazeley, & Cottom, 2009). It also persists in novel groups (Bruneau et al. 2015) and minimal groups of children (Masten, Gillen-O’Neel, & Brown, 2010), and thus does not appear to be reducible to historical intergroup antagonism, but rather fundamental to dispositional empathy, as also illustrated by its positive relationship with group identification (Masten et al., 2010).

This in-group empathy advantage is important because it limits empathy’s effects, as empathy only promotes helping for people for whom we feel it (Batson et al., 1995). Group-based differences in empathic responses predict greater helping intentions for a student at an in-group university (Tarrant et al., 2009) greater emergency intervention for a fellow fan of one’s favorite sport team (Levine et al., 2005), and helping in-group members at personal cost (Hein et al., 2010). People donate more to causes that friends and loved ones have suffered from (Small & Simonsohn, 2008), and leaders give preferential treatment to targets of their empathy (Blader & Rothman, 2014). Such favoritism can be non-optimal, focusing prosocial efforts on (usually in-group) targets of empathy when those efforts could be more effective if extended to others with greater needs (Oceja, 2008).
The in-group advantage endows its targets not only with greater empathic reactions from others, but also extends to them a more robust relationship between empathy and helping. For in-groups, empathy more strongly and more often translates to help. Empathy more strongly predicts helping when the recipient of assistance is an in-group member (Stürmer, Snyder, Kropp, A., Siem, 2006; Stürmer, Snyder, & Omoto, 2005). It most effectively predicts spontaneous and informal prosociality, like housesitting or helping with housework, that are most likely to benefit in-group members (Einolf, 2008). Even when both dispositional and target-specific empathy are equated for in-group and out-group members, empathy has a stronger effect on helping when group membership is shared (Penner & Finkelstein, 1998). Even the identifiable victim effect, where people preferentially help individuals rather than groups, only works for in-group members (Kogut & Ritov, 2007).

Besides its narrow scope and group-contingent effectiveness, empathy can come with direct costs for intergroup relations. When made to feel empathy for an out-group member, people relatively high in prejudice actually react more negatively to an out-group partner, reporting lower desire to interact with them (Vorauer & Sasaki, 2009). It may also spare people from other emotions—such as blame and guilt—that may better challenge the systems undermining social justice and causing out-groups’ suffering in the first place (Boler, 1997).

Importantly, these findings demonstrate how empathy and justice, while both prosocial motives, are independent and can thereby conflict (e.g., Batson et al., 1995; Decety & Cowell, 2014). Indeed, people higher in emotional empathy are not more sensitive to injustices experienced by others (Decety & Yoder, 2015). Thus, besides promoting inefficient resource distribution, parochial empathy and prosociality violate principles of equity, equality, and need, principles central to distributive justice (e.g., Deutsch, 1975; Ellard, Harvey, & Callan, 2016;
Greenberg & Cohen, 2014). Thus, while empathy has traditionally been understood as promoting prosociality, more recent work clarifies the group-based nuances that underlie its beneficial effects.

**Complementing empathy to expand prosociality**

Thorough documentation of empathy’s in-group advantage, while compelling, leaves the literature unbalanced. It fails to provide a full account of group-based helping that encompasses both in-group and out-group advantage, and in doing so, largely leaves the question of promoting out-group prosociality unaddressed. The current research is designed to address these shortcomings. We propose an out-group counterpart to empathy, with the intention to balance and integrate the literature, as well as suggest practical pathways for expanding moral responsiveness to out-groups.

A construct offering out-group moral advantage should be based on factors related to out-group helping. Firstly, such factors tend to be relatively less affective and more cognitive. Most broadly, perspective-taking—empathy’s cognitive component—is a better predictor of sensitivity to justice for others than is affective empathy (Decety & Cowell, 2014). More concretely, specific beliefs about fairness and about who one should help are especially predictive of helping those people. The cognitive position that one should help those in need (the “principle of care”) better predicts helping than empathy does, and it mediates between empathy and helping (Wilhelm & Bekkers, 2010). And empathy-induced preferential treatment is attenuated by (cognitive) beliefs about unfairness (i.e., neglect of others’ needs; Blader & Rothman, 2014). These latter two findings about unfairness and the principle of care also illustrate how cognitive factors are especially effective when they explicitly acknowledge the principle of need. Lastly, other findings point to the benefits of explicitly acknowledging the moral value of out-groups.
Compassion explicitly extended to all people (e.g., *caring for most of humankind*) predicts greater likelihood of volunteering to help immigrants, while empathy does not account for such results (Sinclair et al., 2015).

Thus, in summary, out-group advantage could stem from a cognitive construct that explicitly acknowledges need and out-group inclusion—a construct like humanitarianism, which requires recognition of the moral worth of all people, and the need and suffering of the vulnerable (Andorno, & Baffone, 2014; Schwartz, 1975), and which we define as care for the welfare of all people. In this work, we assess humanitarianism using two existing constructs which together capture the above-mentioned features that promote out-group helping. The first is support for social justice: a set of moral motives and beliefs explicitly focused on promoting distributional justice (Janoff-Bulman & Carnes, 2013). As such, it acknowledges need and relative disadvantage as a basis for helping, and explicitly prioritizes prosociality toward needy and vulnerable targets (thereby including potentially stigmatized out-group members). The second is universalism values, or appreciation of and tolerance for all people as an important life-guiding principle (Schwartz, 2010). Values are primarily cognitive constructs, but also strongly motivate behaviors that promote value-congruent outcomes (e.g., prosocial behaviors; Schwartz, 2010). Importantly, universalism values are concerned with appreciation of all people, thereby necessarily including out-group members. As such, universalism values predict moral inclusiveness of outgroup immigrants and engagement in humanitarian causes (Schwartz, 2007). This makes universalism values fundamentally different from benevolence values, which are apply primarily to in-group members (Schwartz, 2007). Together, social justice and universalism reflect humanitarianism’s recognition of the moral worth of all people, and of the suffering of the vulnerable.
Importantly, in the current research we examine empathy and humanitarianism in terms of relative, or preferential, prosociality. While empathic and humanitarian people can sometimes be overall more prosocial than people lower in those traits, preferential prosociality is relative, in that it is most apparent in contexts where one cannot offer infinite resources to all people in need. Indeed, such a relative context may be representative of many opportunities to help. These opportunities can often be tradeoffs, in which a person has to decide where to “spend” a donation, or their time or energy (e.g., volunteers tend to prefer long-term commitments that preclude commitments to multiple organizations; e.g., Independent Sector, 1999; Penner, 2002). Thus, in the current study we take an approach that examines preferential prosociality that favors in-groups or out-groups.

**Moral obligation to in-groups and out-groups**

What are the mechanisms by which empathy and humanitarianism each predict group-based helping? We propose that empathy and humanitarianism, although affectively and cognitively-based respectively, both exert their effects through group-specific beliefs and motives that prescribe a sense of moral obligation to certain groups. Empathy and humanitarianism both have implications for moral obligation—what one must or should do, or whom one is personally responsible to help—in ways that can diverge along group lines. Children use social categorization to mark moral obligation, treating in-group harm as intrinsically wrong and out-group harm as contextually contingent (Rhodes & Chalik, 2013). And obligation is directly associated with prosociality (e.g., Schwartz, 1977). It is directly motivational, as it prescribes what one must do, and predicts increased charitable behavior (Winterich & Zhang, 2014). Beliefs that one is generally obligated to help others in need (the “principle of care”; Wilhelm & Bekkers, 2010) are better predictors of helping than are empathic
feelings, and the empathy–helping relationship is mediated by this principle of care, suggesting that obligation should mediate between empathy and in-group helping. But this mediation is especially true for abstract or distant helping (e.g., volunteering), suggesting that obligation should also mediate between humanitarianism and (generally more-distant) out-group helping. Thus, a group-based sense of moral obligation has the potential to integrate and explain both empathy’s in-group advantage and humanitarianism’s out-group advantage.

Like helping, we expect perceptions of moral obligation to be group-based, as uniquely applicable to in-groups or out-groups. Previous findings reveal in-group obligation and out-group obligation to be distinct concepts (Winterich, Zhang, & Mittal, 2012), and ones that should work in distinct ways that inform our hypotheses. For in-group targets, obligation means loyalty, and charities that present themselves as promoting in-group loyalty receive higher donations from those who subscribe to moral foundations that prioritize the in-group (as empathy does). For out-group targets, obligation implies caring for the vulnerable and protecting the rights of every individual. Charities that present themselves in this way are preferred by those whose moral foundations prioritize fairness, justice and human rights (as humanitarianism does; Winterich, Zhang, & Mittal, 2012). Thus, we expect that empathy and humanitarianism’s divergent patterns in helping stem from the differing group-based senses of personal obligation associated with each: that empathy predicts in-group helping via in-group obligation, and humanitarianism predicts out-group helping via out-group obligation.

The current research

We propose that empathy predicts moral responsiveness to in-groups, that humanitarianism predicts moral responsiveness to out-groups, and that these patterns stem from the group-based senses of moral obligation associated with each. We test these proposals in five
studies. In Studies 1 and 2, we examine whether empathy and humanitarianism predicts whether people see in-groups and out-groups, respectively, as being worthy of greater moral concern. In Study 3, we expand the generalizability of the findings, testing whether empathy and humanitarianism predict actual prosociality (in the form of resource allocation) for in-group and out-group targets. Study 4 examines whether empathy and humanitarianism predict perceptions of personal moral obligation for in-groups and out-groups, respectively. Study 5 tests whether in-group and out-group obligation mediate between the predictors and in-group and out-group prosociality (in the form of charity allocations).

Study 1

Method

Participants

Participants were 590 volunteers at the Project Implicit website (https://implicit.harvard.edu) who completed all study materials ($M_{age} = 37.0$ years, $SD = 15.7$, 63.6% women, 73.9% White). Politically, 20.2% identified as conservative, 49.9% as liberal, and 29.8% as neutral. All studies received Institutional Review Board approval. Because this study was exploratory and we had no prior information about anticipated effect sizes, we chose a priori to collect data from a large number of participants (600), removing ten people who were not adults.

Materials

Predictor variables.

Humanitarianism. We created a measure of humanitarianism by combining items from two existing measures (see all items in Appendix A). The first was universalism values—how much participants value appreciation of and tolerance for all people—using a four-item subscale
of an adapted form of the Schwartz Short Value Survey (Lindeman & Verkasalo, 2005; e.g., *How important is universalism [understanding, appreciation and tolerance for all people] as a life-guiding principle for you?*). Participants responded using a scale from 1 (*Not important*) to 4 (*Extremely important*). The other was social justice, using a five-item subscale of the Moral Motives scale (Janoff-Bulman, Sheikh, & Baldacci, 2008; e.g., *It's important for those who are better off in society to work hard to provide more resources for those who are worse off*). Participants responded using a scale from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). All nine items were combined by z-scoring and averaging ($\alpha = .87$).

**Empathy.** Several different measures of affective empathy, or affective resonance, exist. To ensure that we most broadly captured the construct, we used a composite measure ($\alpha = .92$; see items in Appendix B) combining items from three existing measures. The first was the seven-item Empathic Concern subscale of the Interpersonal Reactivity Index (IRI; Davis, 1980; e.g., *I would describe myself as a pretty soft-hearted person*), the most-cited existing measure of affective empathy. The second was the seven-item Affective subscale of the Moral Orientation Scale (MOS; Conway, Velasquez, & Love, 2016; e.g., *When I think of people getting hurt it makes me upset*). The third was the twelve-item Affective subscale of the Affective and Cognitive Measure of Empathy (ACME; Vachon & Lynam, 2015; e.g., *I feel awful when I hurt someone's feelings*). For each item, participants responded using a scale from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). All 26 items were combined by z-scoring and averaging ($\alpha = .92$).

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1 The general pattern and direction of results in all studies is the same when predictors (humanitarianism and empathy) are decomposed into the separate scales from which their items originate. The hypotheses were also supported when testing each of our hypotheses using the Empathic Concern (EC; Davis, 1980) subscale only, rather than the composite of measures. We tested hypotheses with the EC only because it is the most-cited measure of affective empathy from which we draw items, and so readers may want more information to compare our results with the wealth of other research using the EC. In Studies 1 and 2, EC-only analyses supported our hypotheses that empathy predicts in-group moral concern and humanitarianism predicts out-group moral concern. In Study 3, EC-
Dependent variables.

**Moral concern.** We measured moral concern for in-groups and out-groups using the moral expansiveness scale (Crimston, Bain, Hornsey, & Bastian, 2016), which assesses which groups of people are deemed worthy of moral consideration. Participants place groups in concentric circles, with the innermost circle representing the highest level of moral standing, and the outermost circle representing groups for which moral concern is extreme or nonsensical (see Figure 1). Groups represented relative in-group (e.g., *your neighbors*; \( \alpha = .75 \)) or out-group (e.g., *foreign citizens*; \( \alpha = .83 \)) members (see Appendix C). Although participants may interpret group membership differently—for example, some Americans may also be foreign citizens (e.g., those with dual citizenship)—“in-group” groups were combined so as to provide the best general representation of in-groups for the average American. Groups were presented on separate pages.\(^2\) Descriptive statistics and zero-order correlations between all variables are reported in Table 1.

**Procedure**

Participants completed demographics as part of their registration at the Project Implicit site. After random assignment to this study from the Project Implicit research pool, which consisted of approximately 6-10 other studies, participants completed the empathy items in randomized order, counterbalanced with universalism values (as part of humanitarianism). They then completed the social justice (as part of humanitarianism) and moral concern measures, also in randomized order. As soon as participants initiated the study session, they were no longer only analyses supported our hypotheses that humanitarianism, but not empathy, predicts out-group charity. In Study 4, EC-only analyses supported our hypotheses that humanitarianism, but not empathy, predicts out-group moral obligation, and that empathy, but not humanitarianism, predicts in-group moral obligation. In Study 5, EC-only analyses supported our hypotheses that empathy predicts in-group charity votes via in-group obligation, and that humanitarianism predicts out-group charity votes via out-group obligation.

\(^2\) All studies were part of a large data collection and not all measured variables are reported here. Data from these and from reported measures are included in the publicly available materials and dataset posted on the Open Science Framework ([https://osf.io/gy5e/](https://osf.io/gy5e/)), where analysis syntax is also available. There is sufficient information for an independent researcher to reproduce the reported methodology and results.
eligible to be assigned to the study again, or to any of the other studies reported in this paper, on subsequent visits to the website.

**Results**

To test the hypothesis that empathy predicts in-group moral concern, we analyzed the data using a regression analysis in which in-group moral concern was predicted by humanitarianism and empathy, controlling for the moral concern accorded to out-groups. The overall model was significant, $R^2 = .39$, $p < .001$. As expected, empathy positively predicted in-group moral concern, $b = .95$ (95% CI = 0.65, 1.25), $\beta = .26$, $SE = .15$, $p < .001$ such that greater empathy was associated with greater moral standing granted to in-group members, controlling for that granted to out-group members. Humanitarianism negatively predicted in-group moral concern, $b = -0.62$ (95% CI = -0.94, -0.30), $\beta = -.17$, $SE = .16$, $p < .001$, such that greater humanitarianism was associated with less moral standing granted to in-group members, controlling for that granted to out-group members.

To test the hypothesis that humanitarianism predicts out-group moral concern, we analyzed the data using a regression analysis in which out-group moral concern was predicted by humanitarianism and empathy, controlling for the moral concern accorded to in-groups. The overall model was significant, $R^2 = .49$, $p = .000$. As expected, humanitarianism predicted out-group moral concern, $b = 2.15$ (95% CI = 1.75, 2.55), $\beta = .40$, $SE = .21$, $p < .001$, such that greater humanitarianism predicted greater moral standing granted to out-group members,

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3 We recognize that some readers may be more accustomed to seeing preferences represented using difference scores. Thus, we also computed the difference between in-group and out-group moral concern, and used that difference score as the outcome in a regression using empathy and humanitarianism as predictors. The overall model was significant, $R^2 = .18$, $p < .001$. As expected, empathy predicted greater preferential moral responsiveness for in-group targets relative to out-group targets, $b = 0.47$ (95% CI = 0.05, 0.89), $\beta = .11$, $SE = .21$, $p = .027$, and humanitarianism predicted less preferential moral responsiveness, $b = -2.07$ (95% CI = -2.48, -1.66), $\beta = -.48$, $SE = .21$, $p < .001$. 
controlling for that granted to in-group members. Empathy did not predict out-group moral concern, $b = -0.13$ (95% CI = -0.56, 0.29), $\beta = -0.02$, $SE = .22$, $p = .55$.

**Discussion**

In this study, empathy predicted greater in-group moral concern, while humanitarianism predicted lower in-group moral concern and greater out-group moral concern. These findings are consistent with our reasoning that empathy and humanitarianism work in fundamentally different—group-based—ways. However, these findings were exploratory. To allow greater confidence in them, the next study provided a confirmatory replication.

**Study 2**

**Method**

**Participants**

Participants were 791 volunteers at the Project Implicit website who completed all study materials ($M_{age} = 39.4$ years, $SD = 13.8$, 61.4% women, 72.3% White). Politically, 17.1% identified as conservative, 56.7% as liberal, and 26.6% as neutral. To establish narrower confidence intervals of the effects, we chose *a priori* to collect data from 800 people, removing nine people who were not adults.

**Materials and Procedure**

As in Study 1, predictors were humanitarianism ($\alpha = .85$) and empathy ($\alpha = .91$). Also as in Study 1, the outcome was moral concern for in-groups ($\alpha = .80$) and out-groups ($\alpha = .84$). Descriptive statistics and zero-order correlations between all variables are reported in Table 2. After completing the predictor scales in randomized order, participants completed the moral concern scale.
Results

To test the hypothesis that empathy predicts in-group moral concern, we analyzed the data using a regression analysis in which in-group moral concern was predicted by humanitarianism and empathy, controlling for the moral concern accorded to out-groups. The overall model was significant, $R^2 = .43, p < .001$. As expected, empathy positively predicted in-group moral concern, $b = 1.07$ (95% CI = 0.81, 1.33), $\beta = .27$, SE = .13, $p < .001$, such that greater empathy was associated with greater moral standing granted to in-group members, controlling for that granted to out-group members. Humanitarianism negatively predicted in-group moral concern, $b = -0.48$ (95% CI = -0.74, -0.21), $\beta = -.12$, SE = .14, $p = .001$, such that greater humanitarianism was associated with less moral standing granted to in-group members, controlling for that granted to out-group members.

To test the hypothesis that humanitarianism predicts out-group moral concern, we analyzed the data using a regression analysis in which out-group moral concern was predicted by humanitarianism and empathy, controlling for the moral concern accorded to in-groups. The overall model was significant, $R^2 = .46, p < .001$. As expected, humanitarianism predicted out-group moral concern, $b = 1.79$ (95% CI = 1.46, 2.12), $\beta = .33$, SE = .17, $p < .001$, such that greater humanitarianism was associated with greater moral standing granted to out-group members, controlling for that granted to in-group members. Empathy negatively predicted out-group moral concern, $b = -0.43$ (95% CI = -0.79, -0.08), $\beta = -.08$, SE = .18, $p = .02$, such that

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4 We recognize that some readers may be more accustomed to seeing preferences represented using difference scores. Thus, we also computed the difference between in-group and out-group moral concern, and used that difference score as the outcome in a regression using empathy and humanitarianism as predictors. The overall model was significant, $R^2 = .12, p < .001$. As expected, empathy predicted greater preferential moral responsiveness for in-group targets relative to out-group targets, $b = 0.75$ (95% CI = 0.40, 1.09), $\beta = .17$, SE = .18, $p < .001$, and humanitarianism predicted less preferential moral responsiveness, $b = -1.69$ (95% CI = -2.02, -1.35), $\beta = -.39$, SE = .17, $p < .001$. 
greater empathy was associated with greater moral standing granted to out-group members, controlling for that granted to in-group members.

**Discussion**

The results of Study 2 largely mirrored those of Study 1. Empathy predicted greater in-group moral concern and lower out-group moral concern, while humanitarianism predicted lower in-group moral concern and greater out-group moral concern. These findings are consistent with Study 1, and with our group-based perspective on empathy and humanitarianism. However, in addition, empathy predicted lower out-group concern. Along with the finding that humanitarianism predicted lower in-group concern, this study additionally shows that empathy and humanitarianism can each be antagonistic to the noncongruent group type. However, it may seem unsurprising that self-reported empathy and humanitarianism predict self-reports of the group-based moral concern that these constructs directly imply. In other words, while Studies 1 and 2 make it clear that empathy and humanitarianism are about caring about in-groups and out-groups, it remains to be shown that those constructs predict actions beyond simply self-reporting greater concern. Thus, to improve the generalizability of the findings, the next study tested whether the effects of empathy and humanitarianism on moral concern would also translate to an outcome less related to abstract moral concern and more conceptually similar to concrete prosocial behavior: donation to charitable organizations.
Study 3

Method

Participants

Participants were 655 U.S. citizen volunteers at the Project Implicit website who completed all study materials ($M_{age} = 35.5$ years, $SD = 15.4$, 67.2% women, 77.3% White). Politically, 19.4% identified as conservative, 51.7% as liberal, and 28.8% as neutral.

Materials and Procedure

As in Studies 1 and 2, predictor variables were humanitarianism ($\alpha = .85$) and empathy ($\alpha = .92$). After completing the predictor scales in randomized order, participants completed the outcome measures of interest: allocation of donations to in-group and out-group charities. Participants were informed that the research team would split $50.00 between four charities on behalf of the study participants, and that participants would decide how to allocate the money. Participants were instructed to allocate a total of exactly five votes to any or all of four charities, two of which represented benefits to in-group members (the American Red Cross, Feeding America; all participants were U.S. citizens) and two of which represented benefits to out-group members (International Charity for Africa, Migrant Offshore Aid Station). Charities were presented in randomized order and accompanied by one-sentence descriptions. Participants’ votes were tallied at the bottom of the screen as they were allocated. Participants were removed from analysis if they did not allocate exactly five votes or if they failed to allocate between 0 and 5 votes to each charity ($n = 129; 16.5$%). Descriptive statistics and zero-order correlations between all variables are reported in Table 3.
Results

In-group charity allocations

**American Red Cross.** To test the hypotheses that empathy, but not humanitarianism, predicts in-group-benefitting allocations, we analyzed the data using a regression analysis in which votes benefitting the American Red Cross were predicted by humanitarianism and empathy. The overall model was significant, $R^2 = .09, p < .001$. Unexpectedly, empathy did not predict votes benefitting the American Red Cross, $b = -0.03$ (95% CI = -0.14, 0.09), $\beta = -.02$, $SE = .06$, $p = .66$. Greater humanitarianism predicted fewer votes benefitting the American Red Cross, $b = -0.38$ (95% CI = -0.49, -0.27), $\beta = -.30$, $SE = .06$, $p < .001$.

**Feeding America.** To test the hypotheses that empathy, but not humanitarianism, predicts in-group-benefitting allocations, we analyzed the data using a regression analysis in which votes benefitting Feeding America were predicted by humanitarianism and empathy. The overall model was significant, $R^2 = .02, p < .001$. Unexpectedly, empathy did not predict votes benefitting Feeding America, $b = -0.02$ (95% CI = -0.14, 0.10), $\beta = -.02$, $SE = .06, p = .69$. Greater humanitarianism predicted fewer votes benefitting Feeding America, $b = -0.19$ (95% CI = -0.31, -0.07), $\beta = -.15$, $SE = .06, p = .002$.

Out-group charity allocations

**International Charity for Africa.** To test the hypotheses that humanitarianism, but not empathy, predicts out-group-benefitting allocations, we analyzed the data using a regression analysis in which votes benefitting the International Charity for Africa were predicted by humanitarianism and empathy. The overall model was significant, $R^2 = .05, p < .001$. As expected, greater humanitarianism predicted more votes benefitting the International Charity for Africa, $b = 0.22$ (95% CI = 0.12, 0.32), $\beta = .20$, $SE = .05, p < .001$. Empathy did not predict
votes benefitting the International Charity for Africa, $b = 0.04$ ($95\% \text{ CI} = -0.06, 0.14), \beta = .04, SE = .05, p = .44$.

**Migrant Offshore Aid Station.** To test the hypotheses that humanitarianism, but not empathy, predicts out-group-benefitting allocations, we analyzed the data using a regression analysis in which votes benefitting the Migrant Offshore Aid Station were predicted by humanitarianism and empathy. The overall model was significant, $R^2 = .11, p < .001$. As expected, greater humanitarianism predicted more votes benefitting the Migrant Offshore Aid Station, $b = 0.35$ ($95\% \text{ CI} = 0.26, 0.45), \beta = .33, SE = .05, p < .001$. Empathy did not predict votes benefitting the Migrant Offshore Aid Station, $b = 0.01$ ($95\% \text{ CI} = -0.09, 0.11), \beta = .01, SE = .05, p = .83$.

**Discussion**

Humanitarianism predicted lower in-group-targeted charity allocations and greater out-group-targeted charity allocations. However, empathy did not predict charity allocations. This finding poses the possibility that humanitarianism is generally more predictive than empathy for predicting whether people favor in-groups or out-groups. But the current study also differed from the previous ones: participants were limited on the resources they could distribute, and could not distribute those resources equally. We expect that under such conditions, humanitarianism best helps people decide who to favor. It could also be that empathy and humanitarianism both predict group-based prosociality, but that under such conditions, empathy works not directly, but only indirectly via moral obligation toward in-groups. The next two studies tested this possibility. Study 4 used empathy and humanitarianism to predict in-group and out-group obligation, respectively, while Study 5 tested whether whether empathy and humanitarianism have indirect effects on in-group and out-group charity allocations via in-group and out-group
obligation. We developed items to measure perceptions of moral obligation. While the moral concern items used in Studies 1-2 refers to moral responsibility, it combines the concepts of moral concern and moral obligation, which are different. For example, one might think that a certain group of people deserves to be cared about, but believe that it is up to someone else to actually help those people, and not their personal obligation or responsibility. Our new measure, on the other hand, isolates moral obligation, which we argue is more proximal to actual behavior than is concern, in line with earlier reasoning (e.g., Schwartz, 1977).

Study 4

Method

Participants

Participants were 796 volunteers at the Project Implicit website who completed all study materials ($M_{\text{age}} = 34.0$ years, $SD = 14.1$, 64.1% women, 70.2% White). Politically, 19.9% identified as conservative, 46.7% as liberal, and 33.4% as neutral.

Materials and Procedure

As in Studies 1-3, predictor variables were humanitarianism ($\alpha = .83$) and empathy ($\alpha = .91$). After completing the predictor scales in randomized order, participants completed the outcome measures of interest: their perceptions of how much they were personally obligated to help each group. The groups were the same as in Studies 1 and 2, spanning a range of in-groups and out-groups. For each group, participants reported how much they agreed that if a member of the group were in need, it is my personal responsibility to help and that if the welfare of a member of the group were threatened, I have a moral obligation or duty to do something about it (in-group obligation $\alpha = .93$; out-group obligation $\alpha = .93$). Descriptive statistics and zero-order correlations between all variables are reported in Table 5.
Results

To test the hypotheses that humanitarianism, but not empathy, predicts out-group moral obligation, we analyzed the data using a regression analysis in which out-group moral obligation was predicted by humanitarianism and empathy, controlling for the moral obligation accorded to in-groups. The overall model was significant, $R^2 = .54$, $p < .001$. As expected, humanitarianism positively predicted out-group obligation, $b = 0.31$ (95% CI = 0.23, 0.39), $\beta = .26$, $SE = .04$, $p < .001$, such that greater humanitarianism was associated with greater out-group obligation, controlling for in-group obligation. Empathy did not predict out-group obligation, $b = -0.02$ (95% CI = -0.10, 0.06), $\beta = -.02$, $SE = .04$, $p = .61$.

To test the hypotheses that empathy, but not humanitarianism, predicts in-group moral obligation, we analyzed the data using a regression analysis in which in-group moral obligation was predicted by humanitarianism and empathy, controlling for the moral obligation accorded to out-groups. The overall model was significant, $R^2 = .54$, $p < .001$. As expected, empathy positively predicted in-group obligation, $b = 0.20$ (95% CI = 0.14, 0.26), $\beta = .23$, $SE = .03$, $p < .001$, such that greater empathy was associated with greater in-group obligation, controlling for out-group obligation. Humanitarianism did not predict in-group obligation, $b = 0.01$ (95% CI = -0.06, 0.07), $\beta = .00$, $SE = .03$, $p = .84$.

---

5 We recognize that some readers may be more accustomed to seeing preferences represented using difference scores. Thus, we also computed the difference between in-group and out-group moral obligation, and used that difference score as the outcome in a regression using empathy and humanitarianism as predictors. The overall model was significant, $R^2 = .07$, $p < .001$. As expected, empathy predicted greater preferential moral obligation for in-group targets relative to out-group targets, $b = 0.08$ (95% CI = 0.01, 0.16), $\beta = .10$, $SE = .04$, $p = .03$, and humanitarianism predicted less preferential moral obligation, $b = -0.27$ (95% CI = -0.34, -0.18), $\beta = -.31$, $SE = .04$, $p < .001$. 
**Discussion**

Study 4 offered a potential explanation of empathy and humanitarianism’s divergent effects for in-groups and out-groups. Empathy, but not humanitarianism, predicted greater in-group obligation, and humanitarianism, but not empathy, predicted greater out-group obligation. These findings also provide initial evidence that empathy, while lacking a direct effect on charity allocations in Study 3, might still exert indirect effects on allocations via obligation. As such, the next and final study tested whether empathy and humanitarianism have indirect effects on in-group and out-group charity allocations via in-group and out-group obligation.

**Study 5**

**Method**

**Participants**

Participants were 510 volunteers at the Project Implicit website who completed all study materials ($M_{age} = 35.8$ years, $SD = 15.6$, 68.6% women, 75.1% White). Politically, 22.1% identified as conservative, 53.9% as liberal, and 23.9% as neutral.

**Materials and Procedure**

As in Studies 1-4, predictor variables were humanitarianism ($\alpha = .90$) and empathy ($\alpha = .92$). After completing the predictor scales in randomized order, participants reported their perceptions of how much they were personally obligated to help in-groups and out-groups, as in Study 4 (in-group obligation $\alpha = .94$; out-group obligation $\alpha = .94$). Then, we measured participants’ desires to donate to in-group and out-group charities. However, rather than donating real money, participants were informed that some studies at Project Implicit donated to charity, and that participants could vote for which charities the research team would consider including in the future. As in Study 3, participants were instructed to allocate a total of exactly five votes to...
any or all of the same four charities ($n = 27$; 5.0% removed for failing to follow instructions). Descriptive statistics and zero-order correlations between all variables are reported in Table 5.

**Results**

To test the hypotheses that empathy would predict in-group charity votes via in-group obligation, and that humanitarianism would predict out-group charity votes via out-group obligation, we examined our predicted mediation effects with four path models (one for each charity). Each model was fully saturated: votes benefitting the charity were predicted by humanitarianism and empathy via both in-group obligation and out-group obligation. Direct effects from empathy and humanitarianism were also specified, and the predictors and mediators were free to covary. We tested for mediation with 10,000 bootstrap resamples (Preacher & Hayes, 2008). The results of this analysis can be found in Tables 6 and 7, and in Figure 2.

**In-group charity allocations**

**American Red Cross.** The direct effect of empathy on votes benefitting the American Red Cross was nonsignificant, $b = 0.00$, 95% CI [-0.13, 0.14], $p = .96$, the effect of in-group obligation was significant and positive, $b = 0.21$, 95% CI [0.05, 0.37], $p = .01$, and the indirect effect via in-group obligation was significant and positive, $ab = 0.07$, 95% CI [0.02, 0.13], $p = .01$.

**Feeding America.** The direct effect of empathy on votes benefitting Feeding America was not significant, $b = 0.03$, 95% CI [-0.12, 0.18], $p = .69$, the effect of in-group obligation was not significant, $b = 0.04$, 95% CI [-0.17, 0.25], $p = .72$, and the indirect effect via in-group obligation was not significant, $ab = 0.01$, 95% CI [-0.05, 0.07], $p = .72$. 
Out-group charity allocations

**International Charity for Africa.** The direct effect of humanitarianism on votes benefitting the International Charity for Africa was significant and positive, $b = 0.16$, 95% CI [0.06, 0.26], $p = .003$, the effect of out-group obligation was significant and positive, $b = 0.19$, 95% CI [0.09, 0.28], $p < .001$, and the indirect effect via out-group obligation was significant and positive, $ab = 0.13$, 95% CI [0.06, 0.20], $p < .001$.

**Migrant Offshore Aid Station.** The direct effect of humanitarianism on votes benefitting the Migrant Offshore Aid Station was significant and positive, $b = 0.32$, 95% CI [0.19, 0.45], $p < .001$, the effect of out-group obligation was significant and positive, $b = 0.21$, 95% CI [0.12, 0.30], $p < .001$, and the indirect effect via out-group obligation was significant and positive, $ab = 0.14$, 95% CI [0.07, 0.21], $p < .001$.

**Discussion**

The results of Study 5 were mostly consistent with our predictions. For both out-group charities, out-group obligation mediated between humanitarianism and allocations. For one in-group charity (the American Red Cross), in-group obligation mediated between empathy and allocations, but this pattern was not observed in the other in-group charity (Feeding America). Together, the results were largely consistent with our predictions, offering moral obligation as a potential explanation of empathy and humanitarianism’s divergent effects for in-groups and out-groups, and suggesting that under zero-sum, limited-resource conditions, empathy may work only via the sense of moral obligation.

**General Discussion**

Five studies support the proposal that empathy and humanitarianism differentially predict preferential moral responsiveness to in-groups and out-groups, and that this pattern stems from
and works via preferential moral obligation associated with each type of predictor and group. In the first two studies, we examined whether empathy and humanitarianism predicts whether people see in-groups and out-groups, respectively, as being worthy of greater moral concern. In Study 1, empathy predicted relatively more moral concern for in-groups, and humanitarianism predicted relatively more moral concern for out-groups, as well as less moral concern for in-groups. Study 2 replicated Study 1. It showed that empathy predicted preferential moral concern for in-groups and less for out-groups, and that humanitarianism predicted more moral concern for out-groups and less for in-groups. In Study 3, we expanded the generalizability and validity of the findings by examining outcomes that were more directly prosocial: resource allocation to charities. Only humanitarianism was predictive. It predicted relatively lower allocations to in-group-benefitting charities and relatively greater allocations to out-group-benefitting charities. In Study 4, humanitarianism predicted greater perceptions of one’s personal moral obligation to out-groups, but not to in-groups, and empathy predicted greater obligation to in-groups, but not to out-groups. Study 5 tested whether obligation mediated between the predictors and charity allocations. For both out-group charities, out-group obligation mediated between humanitarianism and allocations. For one of two in-group charities, in-group obligation mediated between empathy and allocations.

**Empathy and humanitarianism advantage in-groups and out-groups via moral obligation**

These findings converge to support our reasoning that empathy and humanitarianism work in fundamentally different, group-based, ways that stem from moral obligation, additionally revealing that each can be antagonistic to the non-congruent group type. This complementary group-based approach to empathy and humanitarianism has the potential to balance and integrate findings in intergroup helping. The findings echo others in demonstrating
empathy’s in-group advantage (e.g., Bruneau et al., 2015; Tarrant et al., 2009; Zaki & Cikara, 2015), but also provide a fuller, more balanced account of group-based helping by simultaneously encompassing both in-group and out-group advantage. By systematically addressing out-group advantage, the current research reveals humanitarianism as a potential out-group counterpart to empathy. And by examining both in-groups and out-groups, the current research was able to reveal how empathy and humanitarianism support opposing patterns of preferential moral responsiveness, a new and intriguing insight. Specifically, empathy sometimes predicted relatively lower out-group-directed moral responsiveness, and humanitarianism sometimes predicted relatively lower in-group-directed moral responsiveness.

The current research also offers insight into an integrative process—moral obligation—through which both empathy and humanitarianism may exert their effects. The current findings suggest that empathy and humanitarianism each entail, and predict helping via, beliefs prescribing a sense of moral obligation to certain groups. These findings are consistent with others showing that children use group categorization to mark moral obligation (Rhodes & Chalik, 2013), that charity donations align with prioritization of group-based obligation (Winterich et al., 2012), and that, more broadly, perceptions of obligation are fundamental to morality (e.g., Redford & Ratliff, 2015; Schwartz, 1977). Further, the importance of obligation is made clear by its full mediation of empathy’s effects on in-group helping under zero-sum, limited-resource conditions—conditions likely to reflect everyday opportunities for helping. Because moral obligation is motivationally powerful, as well as a concept that is universally applicable across targets and group types, further focus on it could advance and integrate prosociality research.
The current research also examines aggregates of in-groups and out-groups, an approach that is unique and informative. Many studies of empathy or in-group favoritism examine reactions to individual group members rather than groups per se, and rely on differences in membership in just one group (e.g., university affiliation, Tarrant et al., 2009, or race, Mathur et al., 2010). The current research broadens and refines inquiry into group-based helping by examining people’s reactions to in-groups and out-groups per se—to aggregates of in-groups and out-groups, rather than individual group members or single group memberships. Doing so provides a more reliable, generalizable, and stable estimate of the general concept of group effects, an estimate that is less dependent on a single context or group.

Limitations

The current findings vary slightly between outcomes and types of groups. In Studies 1 and 2, empathy and humanitarianism predicted less moral concern for the non-congruent group type three of four times, making it somewhat unclear how often each or both construct can be expected to predict less moral concern for certain groups. Additionally, outcomes in Study 3 were predicted only by humanitarianism, and not by empathy. Humanitarianism predicted allocations to charities: it predicted lower allocations to in-group charities, and greater allocations to out-group charities. As such, across studies, humanitarianism was a more consistent predictor of group-based helping, but its predictive advantage over empathy only emerged in studies using outcomes with limited resources (donation allocations), rather than outcomes related to abstract moral concern (moral concern or moral obligation). Thus, type of moral responsiveness—prosociality versus more abstract moral concern—and restricted resources may moderate people’s reliance on their humanitarian values versus empathic feelings in deciding how to react. Future studies could systematically explore this possibility.
Alternatively, humanitarianism could simply be a stronger predictor of group-based helping than empathic feelings. If so, then researchers could consider including measures related to humanitarianism, rather than focusing on empathy alone, when examining prosociality in contexts where group membership may be salient. Such an approach may reveal that group processes are relevant in situations where this may normally be neglected, e.g., in predicting local volunteerism (which may focus on in-groups) or donations to foreign victims of disasters (which may focus on out-groups).

A final inconsistency concerns Study 5, in which obligation mediated between the expected predictors and charity allocations for all but one of the charities: Feeding America. While the other in-group charity, American Red Cross, showed the expected effects, Feeding America did not. This divergence may occur because although both charities explicitly serve a broad in-group for participants (fellow Americans), their intended beneficiaries differ. The American Red Cross best represents in-group members, as any American could be struck by the type of disaster to which the Red Cross responds. Feeding America, on the other hand, serves needy Americans who may be chronically vulnerable or stigmatized, so although their nationality places them in an in-group with participants, their socioeconomic status may place them in an out-group for some participants.

In terms of sampling, at first glance, our findings could potentially be considered limited by reliance on participants from a single source (Project Implicit). However, Project Implicit samples generally strengthen the generalizability of findings in that they are more educationally diverse, older, and come from a broader geography than most samples commonly drawn from, e.g., student populations.
The current research specifically addresses dispositional empathy and humanitarian values, rather than situation- or target-specific empathy and humanitarian inclinations. As such, it is difficult to draw causal conclusions, provoking the question of whether empathy or humanitarianism could be promoted or inhibited, or whether group processes could be altered, to attain certain outcomes. Below, we discuss future directions that could address some of these nuances.

**Practical implications for expanding prosociality**

The current findings suggest potential paths and future directions that could more broadly distribute moral concern and prosociality. Recognition of the moral value of all human groups might be achieved in several ways: changing how people apply empathy, how they think about empathy, changing group processes, or promoting humanitarian values and related principles.

Firstly, and most broadly, moral concern could be better extended to out-groups by inducing empathy toward out-groups. Explicitly inducing empathy toward stigmatized targets promotes prosociality (Batson et al., 1997; Batson, Chang, Orr, & Rowland, 2002), leading some scholars to advocate inducing empathy in a way that equalizes it across groups (Zaki & Cikara, 2015). These findings and suggestions cohere with the current research in suggesting that empathy should be used to target specific desired groups in order to yield desired group-specific effects, or at least to acknowledge that failure to do so is likely to advantage in-groups members. But the current research, in using aggregates of out-groups, suggests an additional potential complication to promoting empathy. While researchers have successfully induced empathy toward individual out-group members or a single out-group, it may be less practical or effective to induce empathy toward “out-groups” as an aggregate. Empirically, future research could examine whether inducing empathy toward out-groups in general (as opposed to a single out-
group or individual out-group member) is possible and effective for promoting perceived moral obligation and helping toward out-groups in general.

In addition to changing how people distribute their empathic feelings between groups, researchers could attempt to change people’s beliefs about empathy. Very little research has explored this area, but that which has tends to focus on beliefs about empathy’s malleability. People who believe that empathic feelings can be malleable and effortfully controlled tend to spend more time listening to a racial out-group member’s emotional personal story (Schumann, Zaki, & Dweck, 2014). Because our findings suggest that moral obligation explains empathy’s effects on helping, we speculate that people may have beliefs about what empathy implies for what they are obligated to do. Some people may think that the experience of empathic feelings implies obligation to help (the in-group), as necessitating that they be loyal, while others may feel empathy and yet believe it to be unrelated to who they are obligated to help. Future research could explore whether such beliefs about empathy change group-based helping.

The moral responsiveness associated with empathy and humanitarianism is group-based, suggesting that changing group processes could change helping. By redefining group boundaries, such as by increasing self-other overlap or inclusion of others in the self, groups typically considered “out” may be incorporated into the in-group (Gaertner et al., 2000; as also suggested by Decety & Cowell, 2015). Inclusion of out-group members in the self predicts less discrimination against out-group members, as well as greater likelihood of volunteering to help them (and such inclusive group redefinition is predicted by compassion, but not empathy; Sinclair et al., 2015). However, as information about outgroups grows, superordinate goals may be more effective than superordinate group identities for promoting positive intergroup relations (Brewer, 2000; Montoya & Pittinsky, 2011, 2016), as reflected in the classic Robber’s Cave
experiment (Sherif, Harvey, White, Hood, & Sherif, 1961). Goals can even overcome group membership: when roles, and relevant goals, are made orthogonal to group membership, cooperation tracks goals rather than membership (Marcus-Newhall, Miller, Holtz, & Brewer, 1983). Besides redefining group boundaries or goals, another possibility is to make groups less relevant to decisions by reducing their salience.

In addition to changing empathy and group processes, it is possible that moral responsiveness could be equalized across groups by promoting humanitarianism, or by promoting constructs related to humanitarianism or which otherwise directly advantage outgroups. Political liberalism is correlated both with higher universalism values (e.g., Waytz, Iyer, Young, & Graham, in press) and Social Justice values (Janoff-Bulman et al., 2008), the two scales from which we draw items for the current humanitarianism scale. Liberals also score higher on scales assessing love for all humanity and identification with all humanity (McFarland, Brown, & Webb, 2013; Waytz et al., 2016). We speculate that these constructs are related to humanitarianism, but it is unclear whether they directly promote out-group moral concern and prosociality. Moral identity also promotes moral regard toward, and assistance of, out-groups (Reed II & Aquino, 2003), but may not do so for people whose moral identity prioritizes loyalty and in-group favoritism. Future research could systematically compare the effects of these concepts—in conjunction with empathy—with those of humanitarianism.

**Conclusion**

The current research provides a group-based account of helping that simultaneously accounts for both empathy’s in-group and humanitarianism’s out-group moral advantage, explaining these divergent effects via differential senses of personal moral obligation. Thus, recognition of the moral value of all human groups—including those “half a world away”—
might require changing how people think about empathy, how they apply it, changing group processes, or promoting humanitarian values.
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Deutsch, M. (1975). Equity, equality, and need: What determines which value will be used as the basis of distributive justice?. Journal of Social issues, 31(3), 137-149.


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Appendix A

Items used to measure humanitarianism

Items were drawn from Janoff-Bulman, Sheikh, & Baldacci (2008) and adapted from Lindeman & Verkasalo (2005). For items 1-5, responses were given on a scale from 1 (Strongly disagree), 2 (Disagree), 3 (Slightly disagree), 4 (Neither agree nor disagree), 5 (Slightly agree), 6 (Agree), to 7 (Strongly agree). For items 5-9, responses were given on a scale from 0 (Not important), 2 (Slightly important), 3 (Somewhat important), 4 (Very important), to 5 (Extremely important).

1. We should all be responsible for improving the welfare of others beyond our immediate circle of friends and family.
2. It's an obligation, not a matter of personal preference, to provide for people worse off even if we're not close to them.
3. It's important for those who are better off in society to work hard to provide more resources for those who are worse off.
4. If we look after ourselves, we still need to look after others in society.
5. In the healthiest societies those at the top feel responsible for providing better lives for those at the bottom.
6. How important is universalism (understanding, appreciation and tolerance for all people) as a life-guiding principle for you?
7. How important is broad-mindedness as a life-guiding principle for you?
8. How important is beauty of nature and arts as a life-guiding principle for you?
9. How important is social justice as a life-guiding principle for you?
Appendix B

Items used to measure empathy

Items were drawn from Conway, Velasquez, & Love (2016), Davis (1980), and Vachon & Lynam (2015). For all items, responses were given on a scale from 1 (Strongly disagree), 2 (Disagree), 3 (Slightly disagree), 4 (Neither agree nor disagree), 5 (Slightly agree), 6 (Agree), to 7 (Strongly agree).

1. I often have tender, concerned feelings for people less fortunate than me.
2. Sometimes I don't feel very sorry for other people when they are having problems.
3. When I see someone being taken advantage of, I feel kind of protective towards them.
4. Other people's misfortunes do not usually disturb me a great deal.
5. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
6. I am often quite touched by things that I see happen.
7. I would describe myself as a pretty soft-hearted person.
8. Unethical behavior does not bother me.
9. It upsets me when people do something unethical.
10. I tend to get upset when I see someone cheating.
11. When I think of people getting hurt it makes me upset.
12. I cringe when I see someone get injured.
13. I tend to feel strong emotions when someone behaves unethically.
14. Other people's pain is very real to me.
15. It makes me feel good to help someone in need.
16. I get excited to give someone a gift that I think they will enjoy.
17. I don't worry much about hurting people's feelings.
18. I don't really care if other people feel happy.
19. I don't really care if people are feeling depressed.
20. Other people's feelings don't bother me at all.
21. I feel awful when I hurt someone's feelings.
22. Other people's misfortunes don't bother me much.
23. If I see that I am doing something that hurts someone, I will quickly stop.
24. I often try to help people feel better when they are upset.
25. I enjoy making others happy.
26. People have told me that I'm insensitive.
Appendix C
Groups used in Studies 1, 2, 4 and 5

**In-groups**

- One of your family members
- One of your close friends
- Your romantic partner or spouse
- A citizen of your country
- Somebody from your neighborhood
- One of your co-workers
- The President, Prime Minister, or leader of your country
- A charity worker
- A soldier for your country

**Out-groups**

- Somebody with different religious beliefs
- A foreign citizen
- A homosexual person
- A mentally challenged person
- A refugee
- A murderer
- A terrorist
- A member of an opposing political party
- A child molester
Table 1

*Descriptive statistics and zero-order correlations of measures in Study 1*

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<th>M (SD)</th>
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<td>4. Out-group moral concern</td>
<td>12.90 (4.28)</td>
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<td>.59**</td>
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*Note. N = 590. Empathy and humanitarianism are z-scored combinations of subscales with different response options, so their means and standard deviations are 0 and 1, respectively.*

* p < .05, ** p < .01
Table 2

*Descriptive statistics and zero-order correlations of measures in Study 2*

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<td>2. Humanitarianism</td>
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<td>-</td>
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<td>3. In-group moral concern</td>
<td>21.30 (3.46)</td>
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<td>.27**</td>
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<td>4. Out-group moral concern</td>
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<td>.44**</td>
<td>.61**</td>
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</table>

*Note. N = 791. Empathy and humanitarianism are z-scored combinations of subscales with different response options, so their means and standard deviations are 0 and 1, respectively.*

*p < .05, **p < .01
Table 3

*Descriptive statistics and zero-order correlations of measures in Study 3*

<table>
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<td>2. Humanitarianism</td>
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<td>-</td>
<td></td>
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<td>3. Red Cross</td>
<td>1.22 (1.13)</td>
<td>-.19**</td>
<td>-.31</td>
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<tr>
<td>4. Feeding America</td>
<td>1.50 (1.15)</td>
<td>-.11**</td>
<td>-.16**</td>
<td>-.28**</td>
<td>-</td>
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<tr>
<td>5. ICAfrica</td>
<td>1.19 (0.96)</td>
<td>.16**</td>
<td>.22**</td>
<td>.42**</td>
<td>-.44**</td>
<td>-</td>
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<tr>
<td>6. MOAS</td>
<td>1.10 (0.95)</td>
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<td>.33**</td>
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</tbody>
</table>

*Note. N = 655. Empathy and humanitarianism are z-scored combinations of subscales with different response options, so their means and standard deviations are 0 and 1, respectively. Items 3-6 represent charities to which participants allocated votes. ICAfrica = International Charity for Africa; MOAS = Migrant Offshore Aid Station.*

* *p < .05, **p < .01
Table 4

*Descriptive statistics and zero-order correlations of measures in Study 4*

<table>
<thead>
<tr>
<th>Measure</th>
<th>M (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Empathy</td>
<td>Z-scored</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Humanitarianism</td>
<td>Z-scored</td>
<td>.58**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. In-group moral obligation</td>
<td>5.69 (0.78)</td>
<td>.49**</td>
<td>.45**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4. Out-group moral obligation</td>
<td>4.51 (1.05)</td>
<td>.42**</td>
<td>.51**</td>
<td>.70**</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note. N = 796. Empathy and humanitarianism are z-scored combinations of subscales with different response options, so their means and standard deviations are 0 and 1, respectively. *p < .05, **p < .01
## Table 5

*Descriptive statistics and zero-order correlations of measures in Study 5*

<table>
<thead>
<tr>
<th></th>
<th>M (SD)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Empathy</td>
<td>Z-scored</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Humanitarianism</td>
<td>Z-scored</td>
<td>.58**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. In-group obligation</td>
<td>5.82 (0.76)</td>
<td>.50**</td>
<td>.49**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Out-group obligation</td>
<td>4.66 (1.06)</td>
<td>.41**</td>
<td>.60**</td>
<td>.67**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Red Cross</td>
<td>1.27 (1.27)</td>
<td>-.21**</td>
<td>-.41**</td>
<td>-.16**</td>
<td>-.32**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Feeding America</td>
<td>1.66 (1.66)</td>
<td>-.06</td>
<td>.12**</td>
<td>-.10*</td>
<td>-.18**</td>
<td>-.28**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. ICAfrica</td>
<td>1.02 (1.02)</td>
<td>.12**</td>
<td>.25**</td>
<td>-.14**</td>
<td>.27**</td>
<td>-.38**</td>
<td>-.44**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8. MOAS</td>
<td>1.04 (1.04)</td>
<td>.19**</td>
<td>.37**</td>
<td>.16**</td>
<td>.32**</td>
<td>-.44**</td>
<td>-.47**</td>
<td>.04</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note. N = 510. Empathy and humanitarianism are z-scored combinations of subscales with different response options, so their means and standard deviations are 0 and 1, respectively. Items 5-8 represent charities to which participants allocated votes. ICAfrica = International Charity for Africa; MOAS = Migrant Offshore Aid Station.*

*p < .05, **p < .01*
## Table 6

**Raw direct and mediation model effects in Study 5**

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>In-group obligation</th>
<th>Out-group obligation</th>
<th>Red Cross</th>
<th>Feeding America</th>
<th>ICAfrica</th>
<th>Migrant Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Raw direct effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>0.32 [0.22, 0.42], &lt;.001</td>
<td>0.10 [0.00, 0.23], .045</td>
<td>0.04 [-0.10, 0.17], .59</td>
<td>0.02 [-0.13, 0.16], .79</td>
<td>-0.03 [-0.12, -0.07], .56</td>
<td>-0.03 [-0.12, 0.07], .56</td>
</tr>
<tr>
<td>Humanitarianism</td>
<td>0.30 [0.22, 0.39], &lt;.001</td>
<td>0.55 [0.57, 0.79], &lt;.001</td>
<td>-0.51 [-0.65, -0.37], &lt;.001</td>
<td>-0.16 [-0.31, -0.01], .03</td>
<td>0.26 [0.16, 0.36], &lt;.001</td>
<td>0.42 [0.31, 0.52], &lt;.001</td>
</tr>
<tr>
<td><strong>Mediation models</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>0.27 [0.19, 0.36], &lt;.001</td>
<td>0.11 [0.00, 0.23], .09</td>
<td>0.00 [-0.13, 0.14], .96</td>
<td>0.03 [-0.12, 0.18], .69</td>
<td>-0.02 [-0.12, 0.08], .65</td>
<td>-0.01 [-0.11, 0.10], .92</td>
</tr>
<tr>
<td>Humanitarianism</td>
<td>0.27 [0.19, 0.35], &lt;.001</td>
<td>0.68 [0.57, 0.79], &lt;.001</td>
<td>-0.43 [-0.60, -0.26], &lt;.001</td>
<td>-0.05 [-0.22, 0.13], .60</td>
<td>0.16 [0.06, 0.26], .003</td>
<td>0.32 [0.19, 0.45], &lt;.001</td>
</tr>
<tr>
<td>In-group obligation</td>
<td>-</td>
<td>-</td>
<td>0.21 [0.05, 0.37], .009</td>
<td>0.04 [-0.17, 0.25], .72</td>
<td>-0.09 [-0.23, 0.05], .19</td>
<td>-0.17 [-0.32, -0.02], .03</td>
</tr>
<tr>
<td>Out-group obligation</td>
<td>-</td>
<td>-</td>
<td>-0.20 [0.34, -0.07], .003</td>
<td>-0.19 [-0.33, -0.05], .009</td>
<td>0.19 [0.09, 0.28], &lt;.001</td>
<td>0.21 [0.12, 0.30], &lt;.001</td>
</tr>
</tbody>
</table>

*Note. N = 510.*
## Table 7

*Indirect effects in Study 5*

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Red Cross</th>
<th>Feeding America</th>
<th>ICAfrica</th>
<th>Migrant Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect</td>
<td>$b$ [95% CI], $p$</td>
<td>$b$ [95% CI], $p$</td>
<td>$b$ [95% CI], $p$</td>
<td>$b$ [95% CI], $p$</td>
</tr>
<tr>
<td>Empathy $\rightarrow$ In-group obligation</td>
<td>0.07 [0.02, 0.13], .01</td>
<td>0.01 [-0.05, 0.07], .72</td>
<td>-0.03 [-0.06, 0.01], .20</td>
<td>-0.05 [-0.09, 0.00], .04</td>
</tr>
<tr>
<td>Empathy $\rightarrow$ Out-group obligation</td>
<td>-0.02 [-0.05, 0.00], .10</td>
<td>-0.02 [-0.05, 0.01], .12</td>
<td>0.02 [0.00, 0.04], .07</td>
<td>0.02 [0.00, 0.05], .08</td>
</tr>
<tr>
<td>Humanitarianism $\rightarrow$ In-group obligation</td>
<td>0.03 [0.01, 0.05], .01</td>
<td>0.01 [-0.04, 0.06], .72</td>
<td>-0.03 [-0.06, 0.01], .21</td>
<td>-0.05 [-0.09, 0.00], .03</td>
</tr>
<tr>
<td>Humanitarianism $\rightarrow$ Out-group obligation</td>
<td>-0.14 [-0.25, -0.04], .01</td>
<td>-0.13 [-0.22, -0.03], .01</td>
<td>0.13 [0.06, 0.20], &lt;.001</td>
<td>0.14 [0.07, 0.21], .000</td>
</tr>
</tbody>
</table>

*Note. N = 510.*
**Inner Circle of Moral Concern:** These entities deserve the **highest level of moral concern and standing.** You have a moral obligation to ensure their welfare and feel a sense of personal responsibility for their treatment.

**Outer Circle of Moral Concern:** These entities deserve **moderate moral concern and standing.** You are concerned about their moral treatment; however, your sense of obligation and personal responsibility is greatly reduced.

**Fringes of Moral Concern:** These entities deserve **minimal moral concern and standing,** but you are not morally obligated or personally responsible for their moral treatment.

**Outside the Moral Boundary:** These entities deserve **no moral concern or standing.** Feeling concern or personal responsibility for their moral treatment is extreme or nonsensical.

*Figure 1.* Moral concern measure used in Studies 1 and 2
Figure 2. Mediation effects of empathy and humanitarianism on donation allocations via in-group obligation and out-group obligation in Study 5. Coefficients represent unstandardized regression weights and correlation coefficients. Parenthesized values indicate raw direct effects. * = p < .01; ** = p < .001