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# Generosity in a Global Social Dilemma: An Investigation of the Interactive Effects of Moral Values, Moral Mindset and Group Identification on International Cooperation

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Generosity in a Global Social Dilemma: An Investigation of the Interactive Effects of  
Moral Values, Moral Mindset and Group Identification on International Cooperation

by

Kelly Chu

A Thesis

Presented to the Graduate and Research Committee

of Lehigh University

in Candidacy for the Degree of

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in

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Generosity in a Global Social Dilemma: An Investigation of the Interactive Effects of Moral Values, Moral Mindset and Group Identification on International Cooperation  
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## Abstract

The existing literature on social dilemmas has demonstrated that personal values and situational cues often interact to predict cooperative decisions in social dilemma tasks. We propose, however, that whether or not situational cues, such as the framing of the task or perceptions of others involved, effectively motivate decision-makers to act upon their values is ultimately influenced by whether or not decision-makers identify with the other parties involved. This notion of identification seems particularly pertinent when a social dilemma task involves parties from diverse national backgrounds. Across two studies, participants living in the United States of America completed an online global public goods game in which personal values were measured and situational factors were manipulated. Specifically, in Study 1 ( $N = 299$ ), we manipulated the framing of the decision-making task (moral vs. economic) and identification with ethnically diverse others (high vs. low). We found that the relationship between personal moral values and global cooperation was strengthened when identification with ethnically diverse others was high compared to low but only when the task was framed in moral terms. In Study 2 ( $N = 356$ ), we manipulated the perceived need of the international group members involved in the task (high vs. low) and identification with ethnically diverse others (high vs. low). We found that the relationship between personal moral values and global cooperation was strengthened when identification with ethnically diverse others was high compared to low but only when the perceived need of others was high. Overall, these results underscore the integral role of identification in determining whether or not moral values are enacted in the presence of morally-relevant cues.

## **Introduction**

Globalization is certainly not a new phenomenon, but the recent rapid increase in globalization has aroused much controversy over its consequences. Increases in global trade, communication, migration and travel have been linked to substantial economic, political, and cultural growth across the globe. For example, the capacity for international trade allows for the specialization of trade between countries, which improves the economy and standard of living for those involved (Baker & Lawson, 2002). However, despite the apparent benefits of globalization, such interdependence has also received much criticism. The specialization of trade may ultimately benefit local and national economies in the long run, but working toward these eventual gains often entails immediate costs. In the United States, for example, unemployed Americans and economists alike protest that outsourcing jobs to other nations has taken away jobs from and lowered the wages of our own citizens (Madrack, 2004).

Globalization has major costs and benefits, and much of the controversy surrounding globalization is based on disagreement between economic theories and conflicting interpretations of facts (e.g., Bitros, 2013). However, another important and psychologically meaningful conflict that contributes to the controversy is a conflict of interest regarding whose well-being and outcome one is concerned with. In other words, an individual's sentiment regarding globalization is likely to be considerably influenced by whether she values outcomes for the self, her nation, and/or the world as a whole. An individual who is primarily concerned with the outcomes of her nation over others', for example, would not be swayed to favor an action due to its apparent benefit to other

nations; instead, the benefits to her nation *in particular* must outweigh the costs. On the other hand, if an individual is concerned with the outcomes of people in all nations, then she may support an act that benefits all others even at her personal and her nation's expense. Thus, an individual may come to support globalization if the target of her interest is transformed. For example, people may be more inclined to support cross-boundary cooperation if they are concerned with the outcomes of all people, and not just the self or the parochial group (Buchan, Brewer, Grimalda, Wilson, Fatas & Foddy, 2011).

The debate over globalization presents us with a real-life social dilemma—people may choose to protest globalization in order to improve their nation's immediate welfare over others, or they may choose to support globalization in order to benefit other nations in addition to or perhaps over their own. In the social dilemmas literature, it is important to note that much of the research involves cooperation within small groups of strangers, and little is known about the factors that influence decision-making in larger groups that represent diverse national groups. Importantly, increasing people's identification with a group has been shown to be an influential situational factor that increases cooperation with the relevant group (see Ellemers, Spears & Doosje, 2002 for a review); however, the manipulation of group identification may not necessarily function similarly to the other aforementioned situational factors. Specifically, whereas certain situational factors (e.g., task-framing, perceived need) may activate a moral mindset or make personal moral values salient, increasing group identification does not necessarily activate a mindset or values; instead, it may indicate that the people one is interacting with are the people

toward whom their values should be enacted. In other words, some situational factors may indeed activate our values, but ultimately, whether or not we act upon those values toward others depends on whether or not we identify with them.

Indeed, scholars have argued that moral values may only be applied to people that a decision-maker includes within her moral community. Different people at different times may vary in who they include within a moral community, with the boundaries extending from very local (e.g., family, neighborhood) to intermediate (e.g., nation) to global (e.g., all humans, all species; Bandura, 1990; Deutsch, 1985). Thus, although much of the existing literature has examined the congruency between personal values, situational factors, and behavior within parochial groups, it is possible that moral values and morally-relevant situational cues may not lead to corresponding prosocial behavior if other parties involved are not included within the decision-maker's perceived moral community (e.g., if they are ethnically diverse people with whom the decision maker does not identify). Thus, we propose that relevant situational factors will motivate people to act upon their moral values (i.e., behave generously) with people from foreign nations *only* if their identification with ethnically diverse others is made salient.

### **Moral Values**

In the present work, we are particularly interested in how personal and situational factors interact to predict behavior in a global social dilemma. A social dilemma is a situation in which an individual must decide whether to behave selfishly or cooperatively in a group task, and the situation is structured such that every group member would benefit from their own and others' cooperation, but the individual benefits the most by

acting selfishly when others act cooperatively. Experimental games that model social dilemmas serve as valuable tools for research in the area of moral psychology because they present people with situations in which they could act prosocially and benefit others, or act selfishly and potentially take advantage of others' prosociality. The broad purpose of the present work is to investigate the factors that influence whether or not people choose to behave prosocially in a social dilemma situation that includes group members from diverse international backgrounds.

Much of the past literature on individual factors in social dilemmas demonstrates that people's values—for example, their social value orientation (SVO)—can have a considerable influence on their behavior in social dilemmas (see Balliet et al., 2009 for a review). SVO is defined as an individual's enduring preference for a particular pattern of outcomes (e.g., in the division of resources) for the self vis-à-vis others (Messick & McClintock, 1968). The literature on SVO categorizes people into two broad categories: *proself* versus *prosocial*. Proselfs may be further divided into two subcategories: *individualists* and *competitors*. Individualists seek to maximize their own *absolute* outcome regardless of others' outcomes, whereas competitors seek to maximize their *relative* outcome compared to others' outcomes. On the other hand, prosocials seek to maximize joint outcomes between the self and others. Furthermore, a very small subgroup of prosocials is comprised of *altruists*, who seek to maximize the outcomes of others regardless of their own personal outcomes. An individual's SVO can be determined using the *decomposed games procedure*, in which an individual indicates his

preferred allocation of points between himself and another hypothetical individual (Messick & McClintock, 1968).

As an illustrative example, Liebrand and Van Run (1985) proposed that SVO predicts conservation behavior with respect to a limited resource. To measure SVO, participants completed two decomposed game procedures. Participants were then placed in seven-person groups and engaged in a sequence dilemma task, which was explained in terms of an energy conservation crisis. Across several stages, each participant decided how much energy he or she would individually consume (in dollar amounts) from an energy resource (pool of money) that is shared among the group members. Participants were informed that they would be paid the amount of money they took for themselves, but if the total amount taken by all of the group members exceeded the pool size, then each member would receive nothing. Results revealed that altruists took the least amount of money for themselves, followed by the cooperators (i.e., those who prefer equally good outcomes for self and other), then the individualists, and lastly the competitors who took the largest amount of money.

Researchers have further evaluated the relationship between SVO and behavior in social dilemmas by investigating the differences between prosocials and proselfs regarding their personal values and goals (e.g., De Cremer & Van Lange, 2001; Garling, 2010). For example, De Cremer and Van Lange (2001) posited that prosocials' tendency to behave cooperatively is linked to their feelings of social responsibility and/or goal of reciprocity. In their first study, they first measured participants' SVO using decomposed game procedures and categorized participants as either prosocial or proself. Participants

were placed in groups of four and engaged in a one-trial public goods dilemma. In this task, each participant received a number of points and was given the choice to contribute any amount of their points to a group account. The total amount contributed by the group would be multiplied by two and split equally among all members of the group, regardless of their contribution. Thus, the payoff was structured such that contributions to the group account enhanced the outcome of all group members, but an individual's non-contribution would result in the greatest possible outcome for that individual. Just prior to making their contribution decision, participants report the extent to which they felt it was their responsibility to further the collective interest. The results of this study revealed that participants with a prosocial SVO were indeed more likely to report feeling that it was their responsibility to further the collective interest and more likely to contribute points to the group account compared to people with a proself SVO.

In De Cremer and Van Lange's (2001) second study, SVO was measured using the same procedures as in their first study. After participants completed self-reported measures of social responsibility, participants then engaged in a modified public goods dilemma. In this task, the general payoff structure was that of a typical public goods paradigm, and each participant engaged with a single ostensible partner. On a single trial, each participant was given five choices of contributions to their partner, and these five choices varied systematically from most cooperative to least cooperative. After participants received feedback regarding their partners' choice (high cooperation versus low cooperation), participants then made their choice of contributions. Results revealed that when partners' cooperation was low, both prosocials and proselfs were relatively

uncooperative, but when partners' cooperation was high, prosocials were significantly more cooperative than proselfs. Furthermore, the effect of SVO on contributions was partly accounted for by feelings of social responsibility. Prosocials were also more likely to mirror their partners' behavior compared to proselfs; importantly, however, feelings of social responsibility did not account for this pattern of reciprocal behavior.

Overall, the literature suggests that the relationship between SVO and behavior in social dilemmas is linked to personal values and goals, and De Cremer and Van Lange (2001) demonstrated that prosocials are indeed more motivated by feelings of social responsibility than proselfs, but they are also sensitive to others' behavior such that they tend to mirror the behavior of involved parties. This work suggests that not only are prosocials interested in enhancing the collective interest, but they also appear to value reciprocity or equality in outcomes. However, given that reciprocity was measured behaviorally, it remains unclear whether or not prosocials actually value the achievement of reciprocity as a moral virtue.

Haidt (2008) defines morality as comprised of "interlocking sets of values, practices, institutions, and evolved psychological mechanisms that work together to regulate selfishness". Thus, whether or not an individual's reciprocal behavior was a function of her moral values would depend on whether the behavior was motivated by desires to regulate selfish behavior or not. Specifically, reciprocal behavior may be based on values of equality or fairness, which is identified as a moral value (Haidt, 2007); however, it is also possible that the same prosocial behavior measured by SVO and reciprocal behavior exhibited in De Cremer and Van Lange's (2001) work could be based

on compliance with group norms (Kerr, 1995) rather than valuing it per se. It might also be self-protective in certain cases; reciprocating defection ensures that one is not “the sucker.” Thus, the motivations for reciprocity remain open to investigation.

In the present work, we are interested in evaluating the effects of moral values per se on prosocial behavior in social dilemmas. As such, rather than assessing SVO, which indexes preferences for particular outcomes, we measured individual differences in prosocial or other-oriented personality. This is indexed with a scale known as the Prosocial Personality Battery (Penner, Fritzsche, Craiger, & Freifield, 1995), which measures a collection of moral values regarding one’s sentiment toward others, such as a concern for others’ welfare, justice, and social responsibility.

### **Contextual Factors**

There are a large number of contextual factors that have been shown to influence decisions in social dilemma situations. For current purposes, we will focus on two that appear to activate a moral mindset: The way in which the dilemma decisions are framed, and the level of need exhibited by other parties in the interaction.

**The task frame.** Across multiple studies, the manner in which a decision-making task is framed has been shown to influence whether or not people behave cooperatively or selfishly with other group members involved in the task (see Levin, Schneider & Gaeth, 1998 for a review). For example, Pillutla and Chen (1999) directly evaluated the effect of decision framing on people’s behavior and expectations in social dilemmas. The authors proposed that framing a task as economic versus noneconomic would influence whether individuals cooperate. To examine this, all participants were asked to “invest in

a joint investment fund” (economic context) and to “contribute to a social event” (noneconomic context) in two separate games. Half of the participants were presented with the economic context first, and the remaining half of the participants were presented with the noneconomic context first. After deciding how much to contribute in the first context, they received competitive feedback (all other members contributed nothing), cooperative feedback (all other members contributed everything), or no feedback from their group. Participants reported the extent to which the behavior of the group was expected, and they subsequently made their second decision in the alternate context. Results revealed that overall participants contributed more in the noneconomic task compared to the economic task even though the contingencies of the decision (i.e., risks and payoffs) were identical across the two framings. Furthermore, participants who received competitive feedback after the noneconomic task decreased their contribution in the following task significantly more than participants who received competitive feedback after the economic task. Participants also rated competitive feedback after the noneconomic task as more unexpected than cooperative feedback. These results suggest that people indeed hold beliefs about what kind of behavior is appropriate in certain situations, and framing a task as one in which cooperation is appropriate increases cooperative behavior.

**The perceived need of others.** The social dilemmas literature has also demonstrated that experiencing empathy for others in need of help increases prosocial behavior (e.g., Batson & Ahmad, 2001; Batson, Batson, Todd, Brummett, Beverly, Shaw, & Aldeguer, 1995; Batson & Moran, 1999); indeed, an individual’s feelings toward

others may influence his or her behavior regardless of how the task is framed. Batson and Shaw (1991) investigated the link between empathy and altruism, and they posited that the path between empathy and altruistic behavior begins with perceiving another person as in need, and if the perceiver takes on the perspective of the other in need, the perceiver will experience empathy and consequently behave altruistically toward the other. For example, Batson & Moran (1999) proposed that people are more inclined to behave altruistically toward an individual with whom they are interacting when they take on the perspective of the individual compared to when they remain emotionally distant. In their study, participants engaged in a one-trial prisoner's dilemma with an ostensible partner. The task involved exchanging cards that were worth the gain or loss of raffle tickets for a prize, and the task was either framed as a "Social Exchange Study" (social-frame condition) or "Business Transaction Study" (business-frame condition). The participant and their ostensible partner had to decide whether to give a gain card (i.e., cooperate) or a loss card (i.e., defect) to each other. The payoff was structured such that if both parties gave a loss card to each other, then each party would receive 5 raffle tickets; if both parties gave a gain card to each other, then each party would receive 15 raffle tickets; but if one party gave a loss card and the other party gave a gain card, the former would receive 25 raffle tickets and the latter would receive 0 raffle tickets. Thus, as in a typical prisoner's dilemma, both parties would receive a greater outcome if both cooperated than if both defected, but each individual would receive the greatest possible outcome if his/her partner cooperated and he/she defected. Before making their decision, participants were provided information about their ostensible partner's recent life

events—specifically, the partner shared that he/she recently ended a romantic relationship and was very distraught over the breakup. Participants were instructed to either remain objective (low-empathy condition) or take on the perspective of their partner (high-empathy condition). The results revealed that participants in the high-empathy condition were more likely to cooperate than participants in the low-empathy condition in both the social-frame and business-frame conditions; furthermore, among participants in the low-empathy condition, participants were less likely to cooperate in the business-frame condition than participants in the social-frame condition.

Overall, these results suggest that both the framing of the task and the perception of the other's need provide key cues for behavior, and furthermore, framing a task in economic terms does not hinder the effect of taking on the perspective of others in distress. This work demonstrates that even in a task that typically inhibits prosocial behavior, perceiving others as in need of help may activate a “moral mindset” and motivate an individual to act prosocially toward those in need.

### **The Interaction of Values and Situational Cues**

Research suggests that individual values do not consistently predict behavior; instead, the effect of values is often moderated by situational factors (De Cremer & Van Vugt, 1999; Packer et al., in prep; Weber & Murnighan, 2008; Weber, Kopelmann & Messick, 2004). According to Weber et al.'s (2004) logic of appropriateness framework, an individual determines whether or not cooperating with others is appropriate given his personal values, as well as the context of the task. Thus, one limitation of studies like Liebrand and Van Run's (1985) previously mentioned work on the effects of SVO on

cooperation in social dilemmas is that participants are often explicitly informed that they are engaging in a morally relevant task – e.g., an energy conservation task. This presents participants with a situation in which prosocial behavior may be deemed appropriate. In that previous study, for example, the authors found that participants with prosocial SVO were more cooperative than people with proself SVO; however, to the extent that people with prosocial SVO are more concerned with the collective interest, they may have been particularly sensitive to conservation cues compared to people with proself SVO. It is possible that these prosocial individuals behaved cooperatively because they perceived the situation to be one in which their cooperation was appropriate.

Overall, the literature suggests that situational factors often provide a specific context in which certain behavior may or may not be deemed appropriate. For example, Packer et al. (in prep) propose that certain situational cues (e.g., the presence of a moral exemplar) can activate an individual's moral values, which subsequently fosters moral behavior. However, in the absence of such cues, an individual's values may remain inactive. In their studies, participants played a public goods game with three computer-simulated players. Across a series of trials, each player was given an allotment of points, and on each trial, the players had to decide whether they would keep the allotment for the self (i.e., defect) or contribute it to the group account (i.e., cooperate). All of the points contributed to the group account were doubled and distributed equally among all of the players; thus, the payoff was structured such that every player would receive a better outcome if everyone cooperated than if everyone defected, but each individual player would receive the greatest possible outcome if the other players cooperated and he/she

defected. Participants were either placed in the condition in which a moral exemplar—i.e., a *consistent contributor* (CC)—was present (CC condition) or condition in which a moral exemplar was not present (control condition). In the CC condition, one computer-simulated player (the CC) consistently cooperated with the group on every trial, and the remaining two computer players cooperated on some of the trials and defected on others. In the control conditions, all three computer players cooperated on some of the trials and defected on others. Additionally, participants completed the Prosocial Personality Battery (Penner et al., 1995) as a measure of their moral values. The results revealed that participants who strongly endorsed moral values were significantly more likely to cooperate than participants who did not endorse moral values, but *only* in the CC condition and not in the control condition—i.e., only when a moral exemplar was present in the group. These results provide further evidence for the influence of context on the activation and enactment of moral values. Given such results, it is clearly important to elucidate the interactive effects of personal and situational factors on behavior.

Based on prior literature, then, one might derive the predictions that personal moral values are more likely to predict giving to international others both when globalization is framed in moral terms rather than economic terms, and when the global others are perceived as impoverished and in need of help rather than as affluent and self-sufficient. However, we propose that these predictions would not be supported because we also know from prior literature that moral values only tend to be enacted toward targets who fall within the scope of one's moral community (see Deutsch, 1985 for a review). For many people, the moral community only includes members of relatively

narrow ingroups, such family, friends, neighbors, and perhaps nation; often, the moral community does not include people living in distant, unfamiliar nations. Thus, we expect that an additional crucial moderating factor in the context of global social dilemmas will be identification with ethnically diverse others, such that we will *only* observe the interactive person-by-situation effects on generous behavior *if* identification with ethnically diverse others is heightened.

### **Group Identification**

The salience of a group identity has been studied as yet another influential situational factor on decision-making in social dilemmas, and a great deal of research illustrates that, overall, people tend to behave more prosocially toward fellow group members when a shared group identity is made salient (see Ellemers et al., 2002 for a review). However, the influence of group identification is not necessarily uniform across individuals, and its effect on behavior may be moderated by personal factors. For example, De Cremer and Van Vugt (1999) evaluated the interactive effects of group identification and SVO on behavior in a social dilemma. They hypothesized that group identification increases cooperation with a group because it either 1) increases the value assigned to the collective good (i.e., goal-transformation hypothesis) or 2) enhances a sense of trust that others will reciprocate cooperation (i.e., goal-amplification hypothesis). They predicted that if the former hypothesis is true, proselves would be more cooperative when their group identity is high compared to low because their sense of identity would be transformed from self-focused to group-focused, whereas prosocials would be cooperative across identity conditions because their sense of identity is consistently

group-focused. On the other hand, if the latter hypothesis is true, prosocials would be more cooperative when their group identity is high compared to low because their goal is to achieve mutual cooperation and increasing trust increases the expectation of reciprocity, whereas proselves would be uncooperative across identity conditions because they are not concerned with reciprocity.

De Cremer and Van Vugt (1999) conducted three studies in which participants played a public goods game for a monetary payoff. The researchers manipulated levels of identification by telling participants that either the contributions of their group would be compared to the contributions of student groups at other universities (high group identification) or that their individual contributions would be compared to students' contributions in general (low group identification). The results revealed that, overall, participants contributed more when group identification was high compared to low, and when identification was high, prosocials and proselves did not differ in their contributions. Importantly, the proselves contributed significantly more when group identification was high compared to low, whereas prosocials contributed consistently across identification levels. Thus, the findings were consistent with the goal-transformation hypothesis such that identifying with a group transforms people's identity and consequent behavior from self-focused to group-focused.

However, group identification does not always foster prosocial behavior. At times, identification with an ingroup results in increased derogation of and discrimination against outgroup members (see Ellemers et al., 2002 for a review). It appears that people are relatively selective about whom they help or cooperate with—i.e., the scope of their

moral behavior may be largely determined by their salient group identity. Thus, to the extent that people are motivated to preserve the ingroup identity or to benefit only ingroup members, increasing group identification results in prosocial behavior toward the ingroup but antisocial behavior toward the outgroup (Billig & Tajfel, 2006).

Furthermore, by stripping away the human characteristics of others and conceptualizing them as members of a “subhuman” category, people become tolerant and even supportive of the immoral treatment of the dehumanized group (Bandura, 1990).

The human tendency toward ingroup favoritism may have deep evolutionary roots (De Waal, 2006); as such, preservation of and loyalty to ingroups are sometimes perceived as morally righteous (Haidt & Graham, 2007). Indeed, attempts to abolish the existence of ingroups versus outgroups would likely be ineffective and imprudent given that strengthening group identification often fosters prosocial behavior toward ingroup members (see Ellemers et al., 2002 for a review). Thus, given that the scope of one’s morality lies within the ingroup boundary, one way to reduce the derogation and mistreatment of others would be to “humanize” the typically excluded others (Bandura, 1990) and extend the boundary of the ingroup to encompass all people (McFarland et al., 2012; Gaertner et al., 1993). In other words, instead of attempting to eliminate the concept of an ingroup, we may foster prosocial behavior toward all humans by both expanding the boundary of and strengthening the salience of a global group identity.

It is important to highlight that much of the existing literature on identification in social dilemmas focuses on identification with relatively narrow group identities (e.g., collegiate or national identity). However, in one recent study, Buchan et al. (2011)

evaluated the influence of *global social identity* (GSI) and cooperation in the context of a global collective. The authors proposed that GSI transforms people's goals from parochially-focused to globally-focused, which motivates cooperation beyond parochial groups. In their study, participants played a public goods game, and they had to decide whether they would allocate their resources to their personal account, the national account, or the "world" account. Contributing to either the local or world account would result in the multiplication and distribution of contributed resources among the players, and the factors by which the contributions were multiplied and divided were greater for the global account (X3) than the local account (X2). The payoff structure was designed such that one's contribution to the local account could potentially result in a greater payoff than was possible with the personal account (if many others also contributed to the local account, too), but there was a risk of losing resources with the former decision. Similarly, one's contribution to the world account could potentially result in an even greater payoff than was possible with the local account (if many others contributed to the global account, too), but there was an even greater risk of losing more resources with the former decision. After participants made their allocation decision, they completed a three-item GSI measure in which they indicated their attachment to, self-definition as, and perceived closeness with members of the world as a whole. The results revealed that GSI significantly predicted contributions to the world account, and this effect was independent of participants' expectations about others' cooperation. This suggests that GSI does not increase cooperation via increased trust but instead via the transformation of goals from parochially-focused to globally-focused.

However, Buchan et al.'s data were correlational, and more direct evidence is needed regarding a causal link between expansive social identification and global cooperation. More recent literature has shed light on the positive impact of *human identity*, which has been shown to be a distinct construct from other correlates of prosocial behavior, such as empathy, moral reasoning, moral identity, and universalism (McFarland et al., 2012). McFarland et al. evaluated the effect of human identification on feelings and behavior toward humanity. In their studies, participants completed the Identification with All Humanity Scale (IWAH) in which participants responded to nine items regarding the strength of their human identity; e.g., participants indicated the extent to which they care when bad things happen to people all over the world. Scoring of the IWAH scale involves taking into account the strength of human identity vis-à-vis community identity and national identity. Across several studies, IWAH predicted various measures of humanitarian beliefs, such as concern for global human rights. For example, in one study, participants were asked to indicate their preferences for policies that resulted in specific patterns of gains or losses for an outgroup versus the ingroup; e.g., one policy entailed the loss of outgroup (i.e., Afghani) lives against an economic loss for the ingroup. The results revealed that IWAH was significantly negatively correlated with preferential treatment of the ingroup, which suggests that people who identify strongly with humanity exhibit decreased ingroup bias.

In addition to predicting humanitarian beliefs and emotions, McFarland et al. illustrated that human identification also predicts generous behavior toward people from foreign nations. In one study, the authors directly evaluated the effect of human

identification on donation behavior. They presented three samples of participants with an excerpt describing a natural disaster in another country, and participants were informed that they could donate any amount of their winnings from a drawing to relief for the disaster (i.e., UNICEF). The results revealed that identification with humanity consistently predicted donating to UNICEF, whereas identification with community and identification with Americans did not consistently predict donating. These findings suggest that the human identity plays a unique and integral role for fostering prosociality toward people across group boundaries. However, in McFarland et al.'s study, certain situational cues are likely to have influenced participants' behavior; specifically, among people who value the welfare of others, perceiving others as in dire need of help may have placed the individuals in a mindset in which generous behavior was deemed appropriate. Thus, for the present work, we posit that it is important to consider how the perception of the task and the people involved interacts with group identification to predict behavior.

Bandura (1990) posited that “humanizing” others via the affirmation of a common humanity effectively decreases immoral treatment of others, and existing research suggests that exposure to shared human values across diverse cultures indeed decreases perceptions of group differentiation and increases positive feelings toward all of humanity (e.g., Luke & Maio, 2009). Similarly, both positive and negative shared human experiences (SHE) increase feelings of similarity with others. For example, Motyl et al. (2011) evaluated the influence of shared human experiences (SHE) on perceptions of outgroup members. Specifically, they evaluated whether or not exposure

to SHE would attenuate the effect of mortality salience (MS) on negativity toward outgroups. Research suggests that increasing the salience of a person's mortality temporarily increases their bias against and negative reactions toward outgroups (e.g., Harmon-Jones, Greenberg, Solomon & Simon, 1996). Motyl et al. proposed that priming SHE would eliminate this bias-enhancing effect of MS. Across three studies, they manipulated MS by asking participants to answer open-ended questions about death (MS condition) or dental pain (control condition). The researchers primed SHE by providing some participants with examples of SHE among people of diverse cultures (e.g., a story about the childhood experience of an international student), whereas participants in the comparison (control) conditions were provided similar stimuli but with American characters. Participants were then asked a number of questions regarding their feelings toward outgroups (i.e., Arabs and immigrants). The results revealed that participants in the SHE condition perceived their own culture as more similar to other cultures than participants in the comparison condition. Furthermore, MS increased implicit anti-Arab prejudice, elevated anti-immigration attitudes, and reduced support for peace making actions in the comparison conditions, but only in the control conditions and *not* in the SHE conditions. In light of the recent literature on human identification, it appears that exposure to cross-cultural SHE may increase identification with humanity, which in turn increases positivity and reduces negativity toward outgroup members.

Overall, the existing literature on identification with humanity suggests that valuing the lives of people from all nations is directly linked to prosocial emotions and behavior toward international others. It appears that the affirmation of a common

humanity via the exposure to shared human experiences among ethnically diverse people may effectively increase prosociality toward such groups of people. The purpose of the present work is to illustrate the importance of identification with ethnically diverse others for the enactment of moral values toward people from foreign nations in the context of a global social dilemma task.

### **Moral Activation and Group Identification**

Although the salience of a group identity has been studied as yet another influential factor for decision-making among previously mentioned situational factors (i.e., task-framing, perception of need), it appears to play a distinct and critical role that operates differently from other situational factors; specifically, the level of group identification may be crucial in determining whom we bestow generosity upon. Again, this is distinct from simply an activation of values because the group identity is not strictly a cue that the situation is one in which the enactment of moral values is appropriate, but instead, it arguably acts as a cue that the identified-with group members are people toward whom one should enact moral values—i.e., people that one should feel concerned for. Taken together, prior literature supports a prediction that situational factors activate personal moral values, increasing the extent to which those values predict moral behavior in social dilemmas. The important argument here is that the exhibition of such moral behavior may further depend on whether one has a sense of identification with the other parties in the social dilemma. In other words, providing a context in which moral behavior is appropriate may indeed activate an individual's moral values, but the

individual is only likely to act upon these values if the people he or she is interacting with are perceived to lie within his or her moral community.

The purpose of the present work is to examine how manipulating identification with an international group influences the individual's behavior toward members of a global group (i.e., citizens of other nations). For our first study, we investigated whether or not the interaction of personal moral values and the framing of the decision-making task depended on the level of group identification when predicting generous behavior in a global social dilemma. Specifically, we hypothesized that moral values would more strongly predict increased global cooperation when a task was framed in moral terms compared to economic terms, but *only* among people who identified with ethnically diverse others.

Additionally, it is important to highlight that an "international group" may be quite diverse and include people from various cultures, socioeconomic backgrounds, etc. As suggested by existing literature, people may or may not deem cooperation with a global group as appropriate depending on how they perceive the group members. Thus, for our second study, we investigated whether or not the interaction of personal moral values and the perceived need of the global group members depended on the level of group identification when predicting generous behavior in a global social dilemma. Specifically, we hypothesized that moral values would more strongly predict increased global cooperation when global others were perceived as high in need compared to low in need, but *only* among those who identified with ethnically diverse others.

## Study 1

In Study 1, we tested the interaction between moral values, task framing, and identification with ethnically diverse others on contributive behavior in a multilevel public goods game. Based on previous research (e.g., Packer et al., in prep), we hypothesized that there would be a relatively weak relationship between moral values and behavior among participants playing an economic version of the task. Furthermore, we anticipated that this would be true regardless of level of identification – when moral values are not seen as relevant to decisions, it does not matter who is in the moral community/ingroup. In contrast, we expected that moral values would be more predictive of behavior among participants playing a moral version of the task, but that moral behavior would tend to be extended more readily to participants within the moral community/ingroup.

### Method

**Participants.** Participants were 307 male and female adults who completed an online survey via Mechanical Turk for a payment of \$1.00. All of the participants lived in the United States of America. Given that the manipulation for identification used in this study involved a priming task, participants who took exceptionally more time to complete the study were excluded from our analyses. Specifically, eight participants were excluded for completing the study in over 3 standard deviations above the average completion time ( $M = 20.8$  min,  $SD = 8.3$ ), resulting in a total of 299 (152 F) participants included in the analyses. The mean age of participants was 32.35 years ( $SD = 10.88$ ),

85% of participants were Caucasian, and 56% of all participants reported belonging in the middle to upper socioeconomic class.

**Procedure.**

***Identification with ethnically diverse people.*** Participants completed two ostensibly unrelated tasks. The first task was designed to manipulate identification with ethnically diverse others via assimilation vs. differentiation in relation to people from foreign cultures. In order to obscure the genuine purpose of this manipulation, participants were informed that the purpose of this first task was to investigate people's cognitive capacity to create novel thoughts about images they observe. Participants viewed eight photographs depicting people from various cultures (e.g., African, Asian, Latin American) engaging in shared human experiences (e.g., dancing, playing sports). Participants were asked to list either similarities (high ID condition) or differences (low ID condition) that they noticed between the self and the people in the photographs as quickly as possible; specifically, for each photograph, participants read, "List one similarity (difference) between yourself and the people in the photograph" and typed their response in a text box.

***Global Public Goods Game.*** The second task involved the public goods game derived from the work of Buchan et al. (2011). Participants were informed that they would complete an unrelated study that involved an online game, and that this game was a "Resource Allocation Task" about globalization. Participants were provided information regarding the definition and benefits of globalization either framed in economic terms (*economic frame condition*) or in moral terms (*moral frame condition*).

For example, in the moral frame condition, globalization was defined as “the process of extending and enhancing social relationships between nations, so that goods, people and ideas flow smoothly between different nations” and as having the capacity to “create stable prosperity in impoverished nations,” etc. (see complete description in Appendix A). Participants were further informed that they would be participating in this task with actual participants who had signed in online remotely, and that all of the participants lived in one of the following nations: Argentina, Bangladesh, Canada, South Africa, the United Kingdom, and the United States of America. Participants were informed that they would participate in this task with participants from their own nation and from two randomly selected other nations from the provided list, and that each nation would be represented by four participants. Participants were not told which specific nations the other participants lived in—as such, each nation in the game was identified with a letter (e.g., Nation A). In actuality, the ostensible “other participants” were computer-simulated players.

Participants were informed that they would be given virtual money and must decide how to allocate this money. They were provided instructions for the decision-making task and payoff structure for their decisions. In this task, participants were presented with 12 successive trials, and on each trial, each participant was given \$100. On each trial, participants could allocate the \$100 to one of three accounts: their personal (individual) account, their national account, or the world account.

Money placed in the personal account was guaranteed to count toward the individual’s payoff—i.e., if the individual allocated \$100 to his/her personal account on a

given trial, he/she would keep that \$100. Players living in the same nation also shared a national account, and each of the three nations had its own national account. Importantly, players were only able to contribute to and receive a share of money from their own national account. Thus, the individual participant and 3 other ostensible players from the same nation shared one national account, and the ostensible players from the two other nations had their own independent national accounts, providing a total of three distinct national accounts. Any money placed in the national account by each player was doubled and distributed equally among all of the players from the same nation. Players from all nations also shared a world account, and all players could contribute to and receive a share of money from the world account. Any money placed in the world account by each player was tripled and distributed equally among all 12 players (including the participant) from all three nations.

The payoffs were structured such that on any given trial, if the individual placed his/her \$100 in the personal account, he/she would receive a larger return relative to the national or the world account. The return to each individual for each dollar placed in the national account and the world account—the marginal per capita return (MPCR)—was 0.5 and 0.25 respectively; however, the return to the group for each dollar placed in the national account and the world account—the marginal social return (MSR)—was 2 and 3 respectively (Buchan et al., 2011). In other words, the best outcomes for individuals occurred when they allocated money to their personal account and others allocated to the national account or world account. The best outcomes for members in a nation occurred when members allocated to their national account but members of other nations allocated

to the world account. However, the best overall outcomes for everyone as a whole occurred when people from all nations allocated to the world account.

After receiving the instructions for the game, participants completed one practice trial and were provided information about their payoff on this example trial (see example in Appendix B). Participants then proceeded to engage in the resource allocation task with the other ostensible players. After each trial, participants received feedback displaying all of the players' decisions (including their own; as in Appendix B). In actuality, the decisions of the computer-simulated players were fixed, and each computer-simulated player placed \$100 into their personal, national, and world account on an equal number of trials across the 12 trials (i.e., 4 times into each account), in a random order.

*Questionnaire measures.* After completing the game, participants then completed a questionnaire. This questionnaire included measures of prosocial values, moral identification, and identification with humanity. All scales are included in Appendix C.

*Prosocial values.* Three Prosocial Personality Battery (PPB; Penner et al., 1995) subscales were used to assess moral values—specifically, the Social Responsibility (PPB-SR), Other-Oriented Moral Reasoning (PPB-OMR), and Mutual Concerns Moral Reasoning (PPB-MMR) subscales were included. Participants read several statements and rated each statement using a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). An example statement is “I would feel obligated to do a favor for someone who needed it, even though they had not shown gratitude for past favors.”

*Moral identification.* The Moral Identification – Fairness (MID-F; created by the author and her colleagues) and Moral Identification – Generosity (MID-G; created by the author and her colleagues) scales were used to assess the participant’s commitment to the values of fairness and generosity respectively. Participants read several statements and rated each statement using a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). Example statements are “I feel committed to being fair and acting based on principles of justice” (MID-F) and “I feel committed to being a generous and giving person” (MID-G).

*Identification with humanity.* As a manipulation check for the identification manipulation, four items were created to assess participants’ human group identification (HID). Participants read four statements and rated each statement using a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). An example statement is “I feel a sense of connection with all humans.” The Identification with All Humanity Scale (IWAH) was also used to assess identification with humanity. Participants read several statements and rated each statement for the following groups independently: people in one’s community, Americans, and people all over the world. For example, participants were asked, “How close do you feel to each of the following groups?” and rated this using a 5-point scale (1 = *not at all close*, 5 = *very close*).

## **Results and Discussion**

**Identification with humanity.** As a manipulation check for identification with ethnically diverse others, hierarchical regression analyses were conducted to test the effects of ID (low vs. high) and task-frame (economic vs. moral) on participants’ HID scores ( $M = 3.99$ ,  $SD = 0.64$ ,  $\alpha = 0.77$ ). The results revealed a significant main effect of

ID ( $\beta = 0.132, p < 0.05$ ); specifically, participants in the high ID condition had higher HID scores on average than compared to participants in the low ID condition – indicating that the manipulation successfully increased a sense of identification with humanity via assimilation with ethnically diverse others. There was also a significant main effect of task-frame ( $\beta = 0.18, p < 0.05$ ); specifically, participants in the moral frame condition had higher HID scores on average than compared to participants in the economic frame condition. The two-way interaction was not significant. Additionally, hierarchical regression analyses were conducted to test the effects of ID and task-frame on participants' IWAH scores<sup>1</sup> ( $M = 3.25, SD = 0.83, \alpha = 0.92$ ). The results revealed a marginal effect of task-frame ( $\beta = 0.093, p = 0.108$ ) such that participants in the moral frame condition had higher IWAH scores on average compared to participants in the economic frame condition. The main effect of ID and interaction between ID and task-frame on IWAH scores were not significant.

These results suggest that both the ID manipulation and the task-frame manipulation increase a sense of identification with people all over the world. Although the effect of task-frame was not predicted, it appears that framing the task in moral terms (i.e., globalization improves impoverished nations) also made the interconnectedness of humans salient, which consequently increased identification with people all over the

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<sup>1</sup> As per McFarland et al.'s suggested scoring procedure, IWAH scores were calculated as the residuals for participants' IWAH scores on items regarding people all over the world with the items regarding people in one's community and Americans removed. Utilizing raw IWAH scores ( $M = 3.25, SD = 0.83, \alpha = 0.92$ ) for the items regarding people all over the world resulted in a similar pattern of effects. Specifically, there was a significant main effect of task-frame ( $\beta = 0.205, p < 0.001$ ), and the main effect of ID and interaction between ID and task-frame on IWAH scores were not significant.

world. Interpretations of these results will be discussed in context of the behavioral results below.

**Contributive behavior.** Hierarchical regression analyses were conducted to test the interaction between participants' moral values, ID, and task-frame on participants' contributions to the world account. The PPB-SR, PPB-MMR, and MID-F variables were combined to create a single moral values (MV) variable, ( $M = 3.8$ ,  $SD = 0.48$ ,  $\alpha = 0.86$ ).<sup>2</sup> The results revealed a significant main effect of MV on contributing to the world account,  $\beta = 0.290$ ,  $p < 0.001$ . Specifically, MV predicted global cooperation, such that people with strong MV were more likely to contribute to the world account than compared to people with weaker MV. However, this main effect was qualified by the predicted three-way interaction between MV, ID, and task-frame,  $\beta = 0.122$ ,  $p < 0.05$ . No other main effects or interactions were significant.

To decompose the three-way interaction, hierarchical regression analyses were conducted to test the two-way interaction between MV and ID on contributing to the world account within each task-frame condition. As hypothesized, the results revealed a

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<sup>2</sup> We conducted a principal-components factor analysis of these items and found that the three items loaded onto a single component with all loadings over 0.67. Furthermore, we conducted hierarchical regression analyses for PPB-SR, PPB-MMR and MID-F independently and found the same pattern of effects as with the combined MV variable. Specifically, results revealed marginal interactions between PPB-SR, ID and task-frame ( $\beta = 0.097$ ,  $p = 0.091$ ), PPB-MMR, ID and task-frame ( $\beta = 0.104$ ,  $p = 0.066$ ), and MID-F, ID and task-frame,  $\beta = 0.102$ ,  $p = 0.086$ . We also found a marginal interaction between PPB-OMR, ID and task-frame ( $\beta = 0.083$ ,  $p = 0.144$ ), and the interaction between MID-G, ID and task-frame was not significant ( $\beta = 0.017$ ,  $p = 0.777$ ). There was a significant main effect of PPB-OMR ( $\beta = 0.302$ ,  $p < 0.001$ ) and a marginal main effect of MID-G ( $\beta = 0.115$ ,  $p = 0.052$ ). Inclusion of these variables with the MV variables weakened the aforementioned 3-way interaction. It appears that the PPB-OMR and MID-G variables do not exhibit the same pattern of effects as the MV variables because of their considerable main effect on behavior. In other words, PPB-OMR and MID-G predict increased contributions to the world account regardless of the condition. Given that all measures of moral values do not necessarily measure the same construct, the PPB-OMR and MID-G items were excluded from the analyses and combined PPB-SR, PPB-MMR and MID-F into the aggregate MV variable for our analyses.

significant interaction between MV and ID among participants in the moral frame condition ( $\beta = 0.171, p < 0.05$ ) but not in the economic frame condition,  $\beta = -0.066, p = 0.426$  (see Figure 1). Analysis of the simple slopes revealed that among participants in the economic frame condition, MV significantly predicted contributing to the world account in the low ID condition ( $\beta = 0.285, p < 0.01$ ) but not the high ID condition,  $\beta = 0.152, p = 0.253$ . However, as predicted, these slopes were not significantly different from each other, indicating that identification with ethnically diverse others did not influence whether or not participants enacted their moral values with international people because the situation was not one in which moral values had been activated. In contrast, among participants in the moral frame condition, MV weakly predicted contributing to the world account in the low ID condition ( $\beta = 0.178, p < 0.1$ ), but strongly predicted contributing in the high ID condition,  $\beta = 0.514, p < 0.001$ . The fact that thinking about similarities (vs. differences) with ethnically diverse others enhanced the value-behavior relationship is consistent with our prediction that a moral task framing is most likely to energize value-congruent behavior toward others who are perceived as part of the same group.

Additionally, we tested for the differences in the correlation coefficients of MV and contributing to the world account between the moral frame/high ID condition and the remaining three conditions independently. As hypothesized, the results revealed that the correlation coefficients of MV and contributing to the world account in the moral frame/high ID condition,  $r(70) = 0.49, p < 0.001$ , and moral frame/low ID condition,  $r(71) = 0.18, p = 0.121$ , were significantly different from each other,  $z = 2.09, p < 0.05$ .

The correlation coefficients of MV and contributing to the world account in the moral frame/high ID condition and economic frame/high ID condition,  $r(74) = 0.13, p = 0.272$ , were also significantly different from each other,  $z = 2.44, p < 0.05$ . However, the correlation coefficients of MV and contributing to the world account in the moral frame/high ID condition and economic frame/low ID condition,  $r(80) = 0.31, p < 0.01$ , were not significantly different from each other,  $z = 1.33, p = 0.183$ , although the difference was in the expected direction—i.e., the correlation was higher in the moral frame/high ID condition compared to the economic frame/low ID condition.

Overall, although MV significantly predicted global cooperation in the economic frame/low ID condition (contrary to our predictions), MV were more weakly related to global cooperation in this condition compared to the moral frame/high ID condition. The fact that the slope in the economic frame/low ID condition is significant and the economic frame/high ID condition is not significant may simply be noise (i.e., there was no ID X MV interaction in that condition). Importantly, the overall pattern of effects is consistent with our hypothesis that the interaction of the moral frame and identification with ethnically diverse others strengthens the relationship between MV and global cooperation, whereas the economic frame and/or low identification weakens the relationship.

## Study 2

In Study 1, consistent with our hypotheses, we found that moral values were more predictive of contributing to the world account when the task was framed in moral terms compared to economic terms but *only* when identification with diverse others was high.

For Study 2, we investigated whether we would see a similar pattern of effects when the perceived need of the global group members was manipulated instead; specifically, would moral values predict global cooperation toward needy others (who should activate a moral mindset) more strongly when human identification is high rather than low?

Would human identification matter when the others are not needy?

In Study 2, we tested the interaction between moral values, the perceived need of the global group members, and identification with ethnically diverse others on contributive behavior in a multilevel public goods game. Based on previous research (e.g., Batson & Moran, 1999; McFarland et al., 2012), we hypothesized that there would be a relatively weak relationship between moral values and behavior among participants playing with people from nations that are perceived to be in little need of help.

Furthermore, we anticipated that this would be true regardless of level of identification – when moral values are not relevant to decisions, it does not matter who is in the moral community/ingroup. In contrast, we expected that moral values would be more predictive of behavior among participants playing with people from nations that are perceived to be in greater need of help, and that this would be especially true when the global others were perceived as falling within the moral community/ingroup (i.e., high ID).

## **Method**

**Participants.** Participants were 362 male and female adults who completed an online survey via Mechanical Turk for a payment of \$1.00. All of the participants lived in the United States of America. As in Study 1, given that the manipulation for

identification used in this study involved a priming task, participants who took exceptionally more time to complete the study were excluded from our analyses. Specifically, six participants were excluded for completing the study in over 3 standard deviations above the average completion time ( $M = 23.05$  min,  $SD = 23.95^3$ ), resulting in a total of 356 (143 F) participants included in the analyses. The mean age of participants was 34.93 years ( $SD = 11.9$ ), 80% of participants were Caucasian, and 51% of all participants reported belonging in the middle to upper socioeconomic class.

### **Procedure.**

*Identification with ethnically diverse people.* The same ID manipulation and procedure from Study 1 was used in Study 2.

*Global Public Goods Game.* The experimental paradigm for the decision-making task was largely the same as in Study 1. In Study 2, participants were provided the same instructions for the Resource Allocation Task as in Study 1, except for the following three changes: 1) the task was not framed in terms of globalization and participants did not receive any information regarding globalization; instead, participants read that they would simply be “participating in a resource allocation task with people from various nations”; 2) participants were informed that all of the participants lived in one of the following nations: Argentina, Cambodia, Haiti, Sweden, Switzerland, and the United States of America; 3) participants were told which nations the fellow players lived in at the start of the game and after every trial when they received feedback regarding the players’ decisions; specifically, participants were informed that the players were either

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<sup>3</sup>The mean time and standard deviation were largely skewed by a single participant with a completion time of 450 minutes.

from Cambodia, The U.S.A., and Haiti (*high PN condition*) or from Switzerland, The U.S.A., and Sweden (*low PN condition*)<sup>4</sup>.

**Questionnaire measures.** After completing the game, participants then completed a questionnaire. This questionnaire included the same measures of prosocial values, moral identification, and identification with humanity used in Study 1, as well as a measure of perceptions of other nations.

**Perceptions of other nations.** Questions assessing participants' perception of the two other nations they engaged with during the resource allocation task were included as a manipulation check for PN. Specifically, participants were asked questions regarding the perceived need of the other nations (i.e., how impoverished participants thought the others were, and how much help the participants thought the others need) and relationship between the United States of America and the other nations (i.e., how they would characterize the relationship between the U.S.A. and the other nations; see all items in Appendix D). All items were rated using a 5-point scale (e.g., 1 = *not at all*, 5 = *extremely*).

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<sup>4</sup> To choose the nations for the PN conditions, we conducted a pilot study ( $N = 58$ ) in order to determine people's perceived need of the other nations. Participants were asked to rate 12 nations that were either developing (e.g., Haiti) or developed (e.g., Sweden) on how impoverished or "in need" they thought the citizens of each nation were using a 5-point scale (1 = *not at all*, 5 = *extremely*). We conducted paired samples t-tests to determine which countries were the most different in terms of perceived need. Results showed that Haiti was the most different from Sweden ( $t = 13.75, p < 0.001$ ) and Switzerland ( $t = 11.72, p < 0.001$ ), followed by Cambodia as different from Sweden ( $t = 9.87, p < 0.001$ ) and Switzerland ( $t = 8.98, p < 0.001$ ), such that Haiti and Cambodia were perceived as in greater need than Sweden and Switzerland. Additionally, in order to control for preferential biases, participants were also asked to rate the 12 nations on how they characterized the relationship between the U.S.A. and each nation using a 5-point scale (1 = *strong enemies*, 5 = *strong allies*). We conducted paired samples t-tests to determine which countries were the least different in terms of perceived relationship. Results revealed that all of the ratings between the developing and developed nations were marginally or significantly different (all  $p$ 's < 0.12), suggesting that developed nations tended to be perceived as allies to the U.S.A. more so than did developing nations.

## Results and Discussion

**Identification with humanity.** As a manipulation check for ID, hierarchical regression analyses were conducted to test the effects of ID (low vs. high) and PN (low vs. high) on participants' HID scores ( $M = 4.08$ ,  $SD = 0.64$ ,  $\alpha = 0.82$ ). Unlike in Study 1, the results revealed no significant main effects or interaction. Additionally, hierarchical regression analyses were conducted to test the effects of ID and PN on participants' IWAH scores ( $M = 3.27$ ,  $SD = 0.81$ ,  $\alpha = 0.91$ ). The results revealed a very weak effect of PN ( $\beta = 0.08$ ,  $p = 0.134$ ) such that participants in the high PN condition had slightly higher IWAH scores on average as compared to participants in the low PN condition. The main effect of ID and interaction between ID and PN on IWAH scores were not significant.

The results suggest that the ID manipulation did not increase a sense of identification with all of humanity, at least as indexed by these scales. The manipulation utilized in the present work primed identification by asking participants to list similarities that they notice between others and the self. However, it is important to note that group identification involves more than just perceived similarities among group members, and includes other components such as a sense of solidarity, commitment to the group, shared understanding, and so on (Ashforth & Mael, 1989; Tajfel, Billig & Bundy, 1971). Thus, to the extent that our manipulation may have only primed one facet of identification, it is possible the current measures—which tap multiple facets of identification—may not have picked up the psychological state we induced. Notably, that the manipulation exerted some effect is evidenced by the behavioral findings below.

**Perceptions of the other nations.** As a manipulation check for the PN manipulation, hierarchical regression analyses were conducted to test the effects of ID and PN on participants' perceived need of others<sup>5</sup> ( $M = 2.64$ ,  $SD = 1.19$ ,  $\alpha = 0.86$ ). The results revealed a significant main effect of PN ( $\beta = 0.731$ ,  $p < 0.001$ ) such that participants in the high PN condition perceived the other two nations as in greater need of help than participants in the low PN condition, indicating that our PN manipulation was effective. The main effect of ID and the two-way interaction between ID and PN were not significant.

Hierarchical regression analyses were conducted to test the effects of ID and PN on participants' perception of the relationship between the United States of America and the other nations involved in the task ( $M = 3.62$ ,  $SD = 0.69$ ). The results revealed a marginal main effect of ID ( $\beta = -0.085$ ,  $p = 0.099$ ), such that participants in the low ID condition perceived the relationship to be more positive than participants in the high ID condition, and a significant main effect of PN ( $\beta = -0.241$ ,  $p < 0.001$ ), such that participants in the low PN condition perceived the relationship to be more positive than participants in the high PN condition. The two-way interaction between ID and PN was not significant.

Although the perception that the relationships between the U.S.A. and Sweden and Switzerland are more positive than the relationships between U.S.A. and Cambodia and Haiti might simply reflect reality, this difference in perception might rather be driven

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<sup>5</sup> The perceived need of others was measured using the average of responses on the following two items: "When considering the citizens of the two other nations that you participated with (excluding your own nation), how impoverished do you think they are?" and "When considering the citizens of the two other nations that you participated with (excluding your own nation), how much help do you think they need?"

by perceived racial similarity between the citizens of the former group of nations. Specifically, people tend to evaluate others more positively if the others are racially similar to themselves than if they are racially different (e.g., Ensher & Murphy, 1997); thus, it is possible that participants may have evaluated the relationships between the U.S.A. and Sweden and Switzerland more positively simply because, as in the U.S.A., majority of the citizens in the latter two nations are Caucasian. This suggests that the PN manipulation may have been confounded by race, which may have affected participants' feelings toward people from underdeveloped nations (i.e., increased disliking) as well as people from well-developed nations (i.e., increased liking). Importantly, however, the effect of race actually works against our predictions, such that we do *not* expect that people will cooperate more with people who are racially similar (i.e., the Swedes and Swiss) compared to people who are racially dissimilar (i.e., Cambodians and Hatians) on the basis that they feel more positively about the former group of people compared to the latter. Instead, we predict that despite such a possible bias, people will still be more inclined to act on their moral values with respect the racially dissimilar people because they are in greater need – but, of course, only *if* they identify with the ethnically diverse others.

**Contributive behavior.** Hierarchical regression analyses were conducted to test the interaction between MV ( $M = 3.85$ ,  $SD = 0.53$ ,  $\alpha = 0.89$ )<sup>6</sup>, ID, and PN on participants' contributions to the world account. The results revealed a significant main effect of MV on contributing to the world account,  $\beta = 0.392$ ,  $p < 0.001$ . Specifically, MV predicted

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<sup>6</sup> As in Study 1, MV included PPB-SR, PPB-MMR, and MID-F.

global cooperation, such that people with strong MV were more likely to contribute to the world account as compared to people with weaker MV. However, this main effect was qualified by the predicted three-way interaction between MV, ID, and PN,  $\beta = 0.101, p < 0.05$ .<sup>7</sup> No other main effects or interactions were significant.

To decompose the three-way interaction, hierarchical regression analyses were conducted to test the two-way interaction between MV and ID on contributing to the world account within each PN condition. As hypothesized, the results revealed a significant interaction between MV and ID among participants in the high PN condition ( $\beta = 0.154, p < 0.05$ ) but not in the low PN condition,  $\beta = -0.046, p = 0.535$  (see Figure 2). As expected, among participants in the high PN condition, MV weakly predicted contributing to the world account in the low ID condition ( $\beta = 0.226, p < 0.05$ ), but strongly predicted contributing in the high ID condition ( $\beta = 0.535, p < 0.001$ ). The fact that thinking about similarities (vs. differences) with ethnically diverse others enhanced the value-behavior relationship is consistent with our prediction that a high perceived need of help is most likely to energize value-congruent behavior toward others to whom one feels connected. In contrast, among participants in the low PN condition, MV was moderately related to contributing to the world account in both the low ID condition ( $\beta = 0.45, p < 0.001$ ) and the high ID condition ( $\beta = 0.358, p < 0.01$ ). As predicted, these relationships did not differ from each other, indicating that identification with ethnically diverse others did not influence whether or not participants enacted their moral values

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<sup>7</sup> The three-way interactions between ID, PN, and the individual MV variables revealed the same pattern of effects with PPB-SR ( $\beta = 0.176, p = 0.001$ ), PPB-MMR ( $\beta = 0.063, p = 0.209$ ), and MID-F ( $\beta = 0.095, p = 0.07$ ) on participants' contributions to the world account.

with international people who are perceived as low in need (and thus unlikely to activate moral values).

Additionally, we tested for the difference in the correlation coefficients of MV and contributing to the world account between the high PN/high ID condition and the remaining three conditions independently. Results revealed that the correlation coefficients of MV and contributing to the world account in the high PN/high ID condition,  $r(92) = 0.55, p < 0.001$ , and high PN/low ID condition,  $r(84) = 0.218, p < 0.05$ , were significantly different from each other,  $z = 2.61, p < 0.01$ . The correlation coefficients of MV and contributing to the world account in the high PN/high ID condition and low PN/high ID condition,  $r(78) = 0.31, p < 0.01$ , were marginally different from each other,  $z = 1.94, p = 0.052$ . The correlation coefficients of MV and contributing to the world account in the high PN/high ID condition and low PN /low ID condition,  $r(98) = 0.49, p < 0.001$ , were not significantly different from each other,  $z = 0.58, p = 0.562$ .

Overall, the results suggest that identification with ethnically diverse others does indeed strengthen the relationship between MV and global cooperation when interacting with people in great need of help; however, the identification manipulation does not have any effect when interacting with people in little need of help. It appears that the identification manipulation used in this study was only relevant in the high PN condition but not in the low PN condition. Specifically, identifying with ethnically diverse others was only relevant when interacting with diverse others (i.e., in the high PN condition) but did not exert an impact when interacting with people who were similar to the self (i.e., in

the low PN condition). This may explain why we did not see the expected effects of the ID manipulation on identification with humanity; the ID manipulation did not necessarily manipulate identifying with all humans across the globe, but instead may have manipulated identifying with a specific group of people—i.e., ethnically and socioeconomically diverse others.

As mentioned previously, given that the ostensible participants in the low PN condition were from Sweden and Switzerland, which are ethnically and socioeconomically similar to the U.S.A., the PN manipulation was confounded by the pre-existing similarities with people from low PN nations. Again, this confound does not undermine our prediction and finding that MV predicts increased global cooperation when identification with ethnically diverse others is high compared to low but *only* with people from underdeveloped nations (i.e., Cambodia and Haiti). However, this confound may explain why MV was (rather surprisingly) a fairly strong predictor of global cooperation with people from developed nations.

### **General Discussion**

Research on social dilemmas has illustrated the effects of various personal and situational factors for predicting behavior in small groups, but much less is known about the effects of such factors in a global paradigm. In light of the literature on morality, it is important to consider how varying levels of group identification may influence whether or not we act upon our moral values in a given situation. In other words, though we may expect that certain situational cues would prompt us to act upon our values, we may only do so if the people we are interacting with are perceived as within our moral community.

The results for Study 1 suggest that when making decisions in a moral context, identification with ethnically diverse others indeed encourages people to act upon their moral values with the global group. As hypothesized, it appears that the level of group identification is indeed important for determining whether or not people will act upon their moral values in a morally relevant situation (i.e., moral frame condition). On the other hand, when the situation is not morally relevant (i.e., economic frame condition), whether or not one identifies with ethnically diverse others involved is no longer important. Our results for Study 2 similarly suggest that when making decisions that impact people who are from developing nations (i.e., high in need), identification with ethnically diverse others indeed encourages people to act upon their moral values with the global group. On the other hand, when interacting with people from well-developed nations (i.e., low PN condition), whether or not one identifies with ethnically diverse others is no longer as important.

The findings of Study 1 are consistent with the idea that the moral framing activated a moral mindset, which motivated people to enact their moral values, but that enactment of values further depended on the extent to which one identified with the diverse global group members. In Study 2, although the manipulation of others' perceived need was also intended to activate a moral mindset, it appears that the manipulation was confounded by the presence (or absence) of pre-existing identities. Specifically, identification with people from Cambodia and Haiti (i.e., high PN nations) may normally be relatively weak given that majority of the participants in this study were racially and socioeconomically different than people in said nations, thus priming

identification with ethnically diverse others (i.e., high ID condition) was crucial to encourage people to act upon their moral values. However, identification with people from Sweden and Switzerland (i.e., low PN nations) may normally be relatively strong, particularly given that a majority of our participants were racially and socioeconomically similar to people from these nations. Future research would benefit from utilizing a manipulation of perceived need that controls for identification or perceived similarities with the involved parties.

Relatedly, in Study 2, noticing differences between the self and ethnically diverse others (as in the low ID condition) may have actually made the similarities between the self and people from Sweden and Switzerland (as in the low PN condition) more salient, which may have enhanced the relationship between MV and global cooperation with the Swedes and Swiss. One limitation of the ID manipulation is that although the high ID manipulation may have successfully primed identification with diverse others, the low ID manipulation may have inadvertently primed identification with people who are racially and socioeconomically similar. Importantly, the group identification measures used were not sensitive to such differences in group identification. Future research would benefit from measuring identification with people who are similar to the self separately from identification with people who are dissimilar along salient dimensions (e.g., race, socioeconomic status, culture).

Furthermore, given that our identification manipulation only included photographs of non-Caucasian ethnically diverse people, this identification manipulation would not be relevant to identifying with other Caucasian participants. This may further

explain why the manipulation was effective in the high PN condition but not the low PN condition. Specifically, identification with ethnically diverse others indeed increased identification with ethnic minorities—i.e., the Cambodians and Haitians (high PN condition), whereas such identification had no effect on identification with other Caucasians—i.e., the Swedish and Swiss (low PN condition). Thus, it appears that identification with ethnically diverse others was simply not relevant in the low PN conditions and consequently had no effect. For future research, it is important not to prime identification with a specific group (e.g., ethnic minorities) and instead prime identification with a broader international group. Future research would benefit from utilizing a manipulation of identification that involves identifying with people from nations that are different as well as nations that are similar along salient dimensions (e.g., race, socioeconomic status) to the nation(s) the participants belong to.

Additionally, given that the sample of participants for the present studies was recruited via an online market (i.e., Amazon's Mechanical Turk), the sample of participants is not necessarily representative of all citizens of the United States of America. Thus, the effects our identification manipulation may have differed with a more ethnically and/or socioeconomically diverse sample of participants—e.g., for Study 2, if the sample were more diverse, the positive relationship between MV and global cooperation may not have been apparent in the low PN condition given that pre-existing identification with the low PN nations (i.e., Sweden and Switzerland) would not be as strong. Future research would further benefit from studying a much more diverse and representative sample of participants.

Furthermore, the manipulation of group identification may not have necessarily increased identification with ethnically diverse others. It is possible that assimilation actually increased empathy for those in need of help, and it was the experience of compassion that motivated generous behavior. In other words, when an individual assimilated the self with people who were in need, he or she may have experienced compassion for them without actually viewing them as part of the “ingroup”; instead, assimilation may have led the individual to empathize with the people in need, which sufficiently activated his moral values, and the individual was motivated to act upon those values primarily because the individual believed it was his moral responsibility to take care of less fortunate people. Although we took steps to avoid priming compassion in our identification manipulation by utilizing photographs in which the ethnically diverse others appeared happy and free of suffering (e.g., children laughing, a mother coddling her baby), given that the people in the photographs appeared to be relatively impoverished and from developing nations, it is possible that this manipulation still primed compassion for those who are less fortunate.

Another major limitation of the present studies is that the decision-making task involved playing a virtual game with little to no personal costs. Participants completed an online decision-making task in which no genuine resources were at stake. Although previous research suggests that personal values do indeed correlate with actual generous behavior—e.g., donating money to relief funds (McFarland et al., 2012)—it is possible that participants were more inclined to behave generously in the present studies given that their actual finances were not at stake. Future research would benefit from placing

participants in situations in which their decisions have more imposing personal costs, such as if their finances or chances for a reward are at stake.

Relatedly, another limitation of the present studies is that the decisions of the ostensible participants were fixed and not reactive to the decisions of the participants. Although previous research has shown that participants are similarly influenced by others' behavior when they are simulated and fixed (e.g., Packer et al., in prep) or genuine and reactive (e.g., Weber et al., 2008), it is possible that people's behavior would differ depending on how others within their group responded to their own behavior. Furthermore, the decisions of the computer-simulated players were held constant, and the computer-simulated players gave to the personal, national, and world accounts on the same number of trials across the 12 total trials; consequently, all of the computer-simulated players appeared impartial in their contribution decisions across the three accounts. It is possible that the effect of group identification on the relationship between personal values and generous behavior may differ depending on the level of cooperation among the fellow group members. For example, Packer et al. (in prep) found that when participants played a public goods game with relatively cooperative group members and the task was framed in moral terms, personal moral values predicted cooperation with the group regardless of whether or not a moral exemplar was present in the group; however, when participants played a public goods game with uncooperative group members and the task was framed in moral terms, moral values predicted cooperation with the group *only* when a moral exemplar was present and *not* when a moral exemplar was absent. In light of this work, it would be beneficial for future research on global social dilemmas to

investigate whether or not people are similarly influenced by the behavior of other fellow players either by evaluating participants' behavior with actual fellow participants or by systematically manipulating overall rates of cooperation among simulated players.

Overall, the results of Study 2 suggests that present contextual cues for identification may interact with pre-existing identities to influence how we behave toward certain groups, and the results of both Studies 1 and 2 demonstrate the critical role of group identification in determining toward whom we choose to enact our values. Presenting people with a morally relevant situation activates an individual's moral values, but ultimately, whether or not they act upon those values in the context of a global group depends on whether or not they identify with members of that global community. In other words, when the situation is not morally relevant, whether or not an individual identifies with diverse others is not relevant. However, when the situation is morally relevant, the individual's moral values become activated, and she must subsequently ask herself whether or not the people with whom she is interacting with are people with whom she wishes to enact her moral values toward; thus, her level of identification becomes relevant, and she only extends her generosity toward the global group *if* she identifies with them. When it comes to the real-life social dilemma of globalization, simply focusing on the needs of others may not be sufficient to foster support for international cooperation. Instead, we must also foster a sense of the similarities between ourselves and people who are seemingly distant from us. Such a sense of connection will ultimately reshape our moral boundaries to include these distant others as worthy recipients of our generosity and cooperative efforts.

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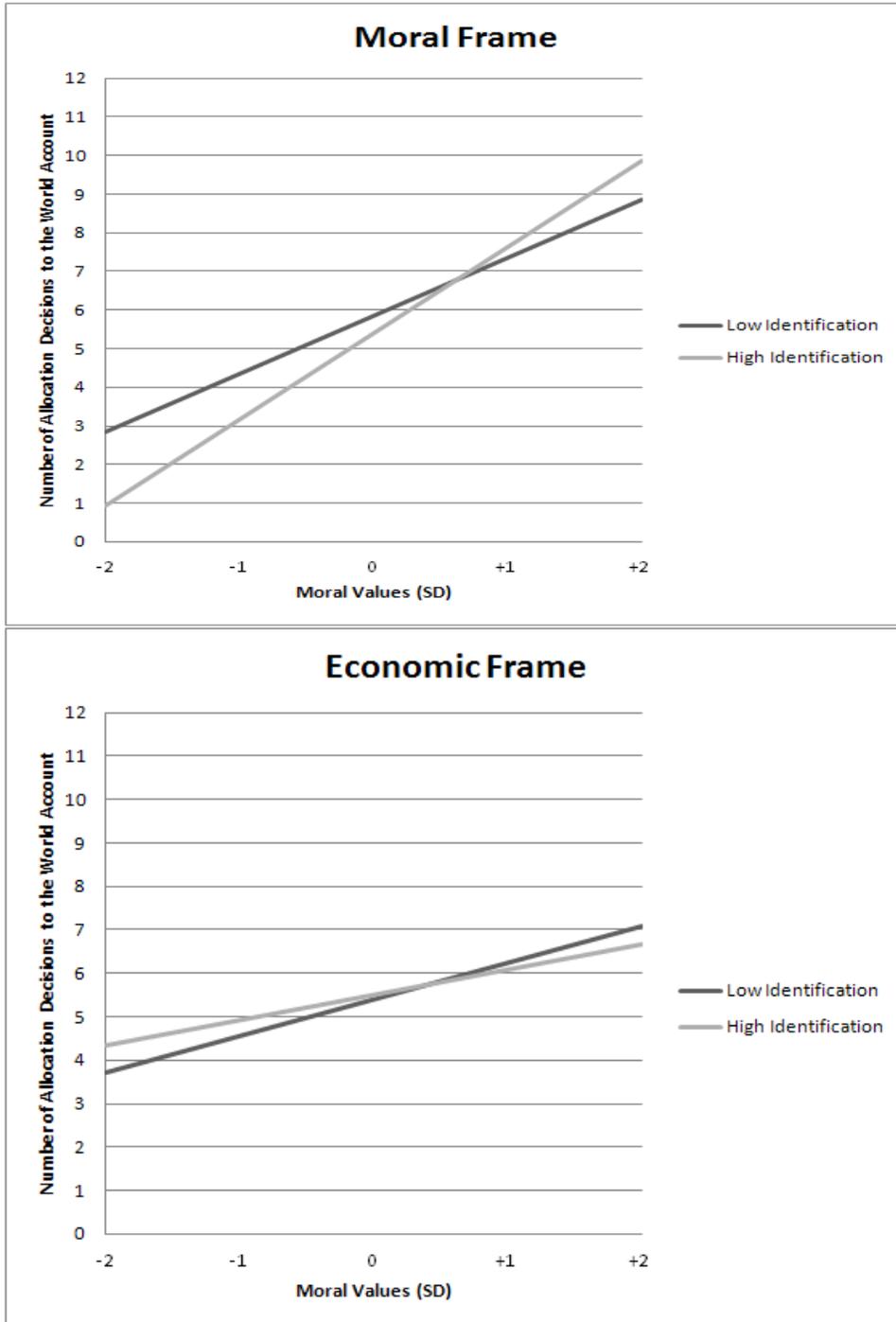
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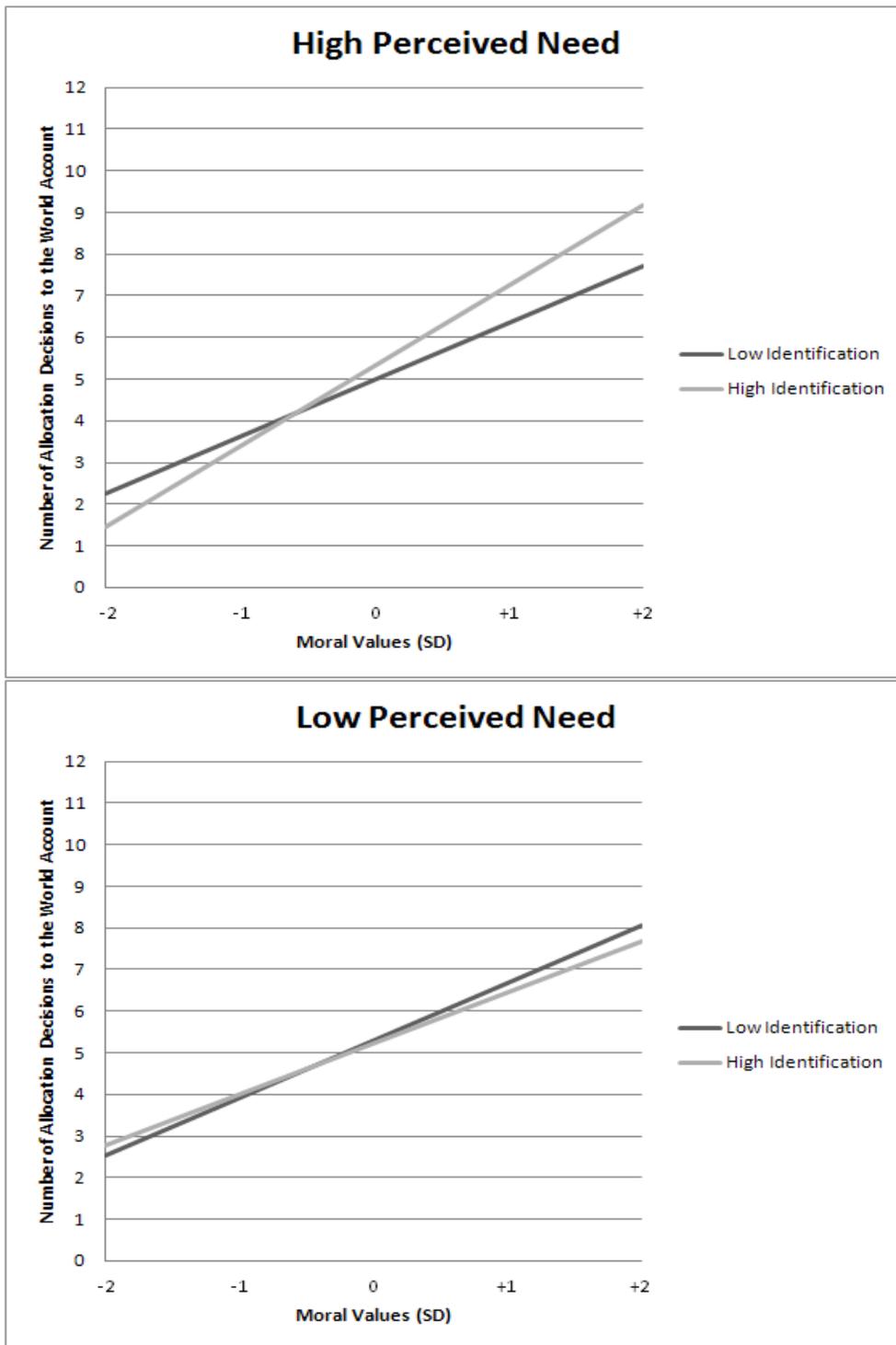
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## Figures



**Figure 1.** Study 1: Number of Allocation Decisions to the World Account as a function of Moral Values X Task-Framing X Identification.



**Figure 2.** Study 2: Number of Allocation Decisions to the World Account as a function of Moral Values X Perceived Need X Identification.

## Appendix A

### Global Public Goods Game Instructions (Study 1)

#### *Moral-frame condition:*

Today, you will be participating in a resource allocation task about globalization, and you will participate in this task with randomly selected participants from various nations who have also logged on to this survey.

Globalization refers to the process of extending and enhancing social relationships between nations, so that goods, people and ideas flow smoothly between different nations. Globalization provides nations with a history of poverty access to resources they could not acquire on their own. For this reason, experts think that globalization can create stable prosperity in impoverished nations, and that it will help to dramatically improve living conditions in nations all around the world.

As the world globalizes, people have to make decisions about how to allocate resources. In this task, you and other players (from your own and other nations) will make these sorts of decisions.

All of the participants in this study today live in one of the following nations: Argentina, Bangladesh, Canada, South Africa, the United Kingdom, and the United States of America. You and participants from your nation will engage in the task with participants from two other randomly selected nations from the provided list. There will be a total of 12 players (including you) participating in this task together. This means players from a total of 3 nations (including your own) will participate in this task, and each nation will be represented by 4 players. You will not be told which specific nations the other players live in.

#### *Economic-frame condition:*

Today, you will be participating in a resource allocation task about globalization, and you will participate in this task with randomly selected participants from various nations who have also logged on to this survey.

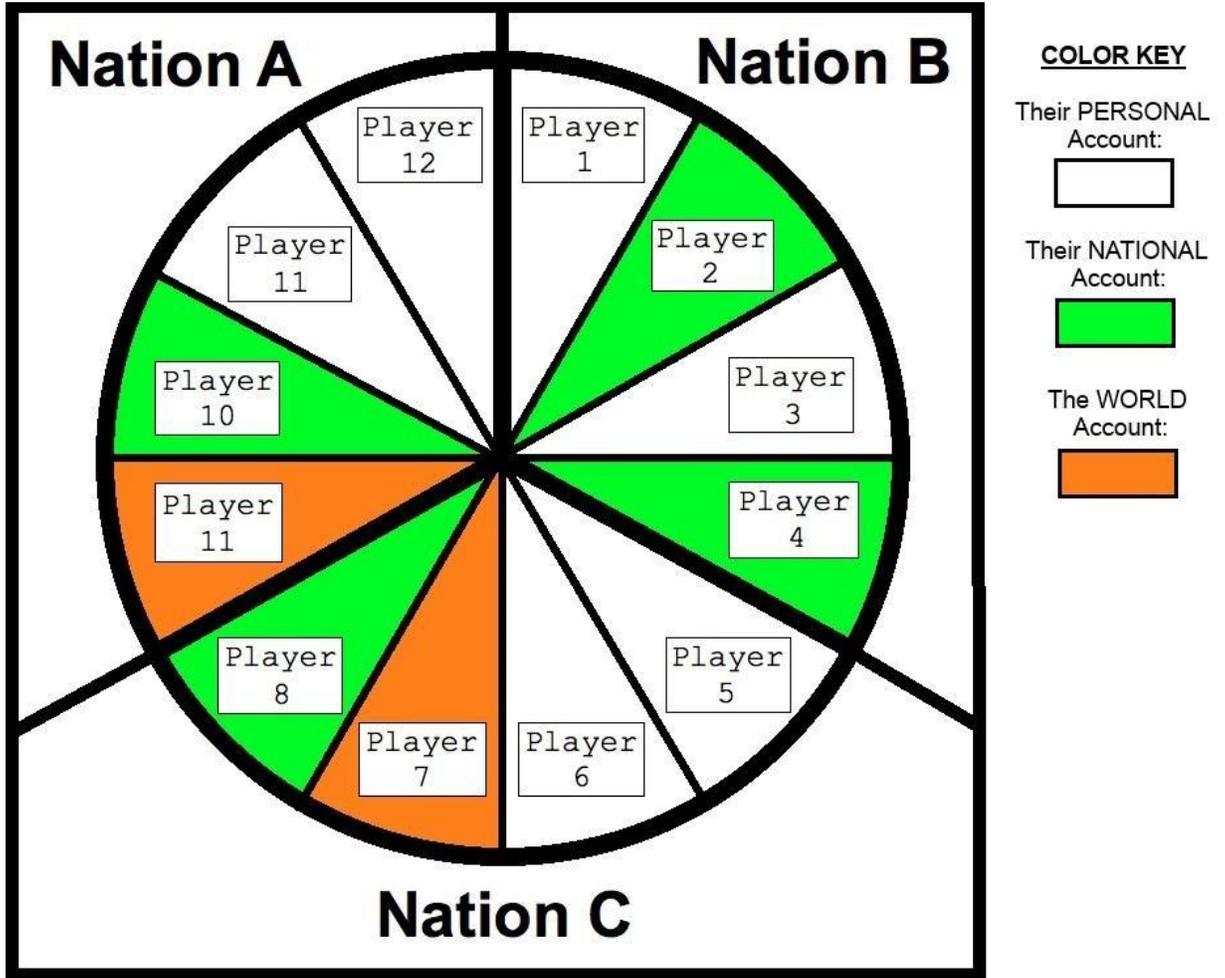
Globalization refers to the process of extending and enhancing economic relationships between nations, so that goods, services, and money flow smoothly between different nations. Globalization allows nations to find new markets for their products around the globe. For this reason, experts think that globalization is beneficial to nations because it improves their economies by dramatically expanding the customer base available to purchase the goods and services they produce.

As the world globalizes, people have to make decisions about how to allocate resources. In this task, you and other players (from your own and other nations) will make these sorts of decisions.

All of the participants in this study today live in one of the following nations: Argentina, Bangladesh, Canada, South Africa, the United Kingdom, and the United States of America. You and participants from your nation will engage in the task with participants from two other randomly selected nations from the provided list. There will be a total of 12 players (including you) participating in this task together. This means players from a total of 3 nations (including your own) will participate in this task, and each nation will be represented by 4 players. You will not be told which specific nations the other players live in.

## Appendix B

### Example trial (Studies 1 and 2)



Imagine for this example, you are **Player 1** in **Nation A**.

Each player is allocated **\$100**

You placed your money in your **personal account**

And 2 players from YOUR nation (i.e., Nation A) placed their money in your **national account**

And 2 players from ALL nations (i.e., Nations A, B, and C) placed their money in the **world account**

Your earnings for this round equals the money placed in your **personal account** PLUS a share from your **national account** PLUS a share from the **world account**:

$$= \$100 + [(\$100 + \$100) \times 2 / 4] + [(\$100 + \$100) \times 3 / 12]$$

$$= \$100 + \$100 + \$50$$

$$= \mathbf{\$250}$$

## Appendix C

### 1. Prosocial Personality Battery (Penner et al., 1995) (Studies 1 and 2)

#### ***Social Responsibility Subscale:***

*You will now read a number of statements that may or may not describe YOU. Please read the following statements carefully and indicate whether each statement describes YOU personally:*

(1 = strongly disagree, 5 = strongly agree)

1. If a good friend of mine wanted to injure an enemy of theirs, it would be my duty to try to stop them.
2. I wouldn't feel that I had to do my part in a group project if everyone else was lazy.
3. When people are nasty to me, I feel very little responsibility to treat them well.
4. I would feel less bothered about leaving litter in a dirty park than in a clean one.
5. No matter what a person has done to us, there is no excuse for taking advantage of them.
6. You can't blame basically good people who are forced by their environment to be inconsiderate of others.
7. No matter how much people are provoked, they are always responsible for whatever they do.
8. Being upset or preoccupied does not excuse people for doing anything they would ordinarily avoid.
9. As long as business people do not break laws, they should feel free to do their business as they see fit.
10. Occasionally in life people find themselves in a situation in which they have absolutely no control over what they do to others.
11. I would feel obligated to do a favor for someone who needed it, even though they had not shown gratitude for past favors.
12. With the pressure for grades and the widespread cheating in school nowadays, the individual who cheats occasionally is not really as much at fault.
13. It doesn't make much sense to be very concerned about how we act when we are sick and feeling miserable.
14. If I broke a machine through mishandling, I would feel less guilty if it was already damaged before I used it.
15. When you have a job to do, it is impossible to look out for everybody's best interest.

#### ***Mutual Concerns Moral Reasoning and Other-Oriented Moral Reasoning Subscales:***

*You will now read a number of statements that may or may not describe YOU. Please read the following statements carefully and indicate whether each statement describes YOU personally:*

(1 = strongly disagree, 5 = strongly agree)

35. My decisions are usually based on my concern for other people.
36. My decisions are usually based on what is the most fair and just way to act.
37. I choose alternatives that are intended to meet everybody's needs.
38. I choose a course of action that maximizes the help other people receive.
39. I choose a course of action that considers the rights of all people involved.
40. My decisions are usually based on concern for the welfare of others.
41. My decisions are usually based on my personal principles about what is fair and unfair.
42. I choose alternatives that minimize the negative consequences to other people.

## **2. Moral Identification Scales (Studies 1 and 2)**

### ***Fairness Subscale:***

*Please indicate whether each statement describes you personally:*

(1 = strongly disagree, 5 = strongly agree)

1. The fact that I am a fair-minded person is an important part of my identity
2. Being fair and just is an important part of my identity.
3. I feel committed to being a fair and acting based on principles of justice.
4. I am glad to be a person who is fair and just in his or her decisions.
5. I think that when I act based on principles of fairness and justice I have a lot to be proud of.
6. It is pleasant to act fairly and justly.
7. Being fair and just gives me a good feeling.
8. I think of myself as being a fair and just person.

### ***Generosity Subscale:***

*Please indicate whether each statement describes you personally:*

(1 = strongly disagree, 5 = strongly agree)

1. The fact that I am generous and giving is an important part of my identity
2. Being generous and giving is an important part of my identity.
3. I feel committed to being a generous and giving person.
4. I am glad to be a generous and giving person.
5. I think that when I offer things to others—my time, my support—I have a lot to be proud of.
6. It is pleasant to be generous and giving.
7. Being generous and giving gives me a good feeling.
8. I think of myself as being a generous and giving person.

### **3. Human Group Identification (Studies 1 and 2)**

*Please indicate whether each statement describes you personally:*

(1 = strongly disagree, 5 = strongly agree)

1. I can see similarities between myself and other humans.
2. I feel a sense of connection with all humans.
3. I value the lives of all humans.
4. I feel motivated to help other people.

### **4. Identification with All Humanity Scale (McFarland et al., 2012) (Studies 1 and 2)**

*How close do you feel to each of the following groups?*

(1 = not at all close, 5 = very close)

1. People in my community
2. Americans
3. People all over the world

*How often do you use the word “we” to refer to the following groups of people?*

(1 = almost never, 5 = very often)

4. People in my community
5. Americans
6. People all over the world

*How much would you say you have in common with the following groups?*

(1 = almost nothing in common, 5 = very much in common)

7. People in my community
8. Americans
9. People all over the world

*Sometimes people think of those who are not a part of their immediate family as*

*“family.” To what degree do you think of the following groups of people as “family?”*

(1 = not at all, 5 = very much)

10. People in my community
11. Americans
12. All humans everywhere

*How much do you identify with (that is, feel a part of, feel love toward, have concern for) each of the following?*

(1 = not at all, 5 = very much)

13. People in my community

- 14. Americans
- 15. All humans everywhere

*How much would you say you care (feel upset, want to help) when bad things happens to:*

(1 = not at all, 5 = very much)

- 16. People in my community.
- 17. Americans.
- 18. People anywhere in the world.

*How much do you want to be:*

(1 = not at all, 5 = very much)

- 19. a responsible citizen of your community.
- 20. a responsible American citizen.
- 21. a responsible citizen of the world.

*How much do you believe in:*

(1 = not at all, 5 = very much)

- 22. being loyal to my community.
- 23. being loyal to America.
- 24. being loyal to all mankind.

*When they are in need, how much do you want to help:*

(1 = not at all, 5 = very much)

- 25. people in my community.
- 26. Americans.
- 27. people all over the world.

## Appendix D

### Perceptions of other nations (Study 2)

*When considering the citizens of the two other nations that you participated with (excluding your own nation), how impoverished do you think they are?*  
(1 = not at all, 5 = extremely)

*When considering the citizens of the two other nations that you participated with (excluding your own nation), how much help do you think they need?*  
(1 = none, 5 = a great deal)

*How would you characterize the relationship between the United States of America and the two other nations that you participated in the Resource Allocation Task with?*  
(1 = strong enemies, 5 = strong allies)

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#### EDUCATION

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Master of Science (anticipated), September 2013  
Lehigh University, Bethlehem, Pennsylvania  
Major: Psychology  
Concentration: Social Cognition  
GPA: 4.0

Bachelor of Arts, May 2011  
Lehigh University, Bethlehem, Pennsylvania  
Major: Psychology  
Minor: Social Psychology  
GPA: 3.6

#### HONORS AND AWARDS

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Strohl Graduate Research Fellowship, 2012 (awarded for exceptional research in psychology)  
Dean's List, Lehigh University, 2010—2011  
Psi Chi, International Honor Society in Psychology

#### PROFESSIONAL AFFILIATIONS

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Eastern Psychological Association  
New York Academy of Sciences

#### CONFERENCE PRESENTATION

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Chu, K., Packer, D.J., & Gill, M. J. Is this a moral situation? How prosocial values shape detection of and responses to others' moral acts. Symposia presented March 4<sup>th</sup>, 2013 at the Eastern Psychological Association Conference at the Marriott Marquis, New York City, NY.

#### RESEARCH EXPERIENCE

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*Graduate Research Assistant* for Michael Gill, PhD. and Dominic Packer, PhD. 2011 – Present  
Lehigh University Psychology Department, Bethlehem, PA

- Research the effects of personal and situational factors on prosocial behavior in social dilemmas
- Evaluate psychological literature and write research manuscripts for publication
- Create personality assessment measures for experiments
- Program computer software for experiments
- Code and analyze data using statistical software

- Undergraduate Research Assistant* for Amanda Brandone, Ph.D. 2011  
 Lehigh University Psychology Department, Bethlehem, PA
- Conducted research on infants' capacity for theory of mind, understanding others' goals, and understanding of language and categorization
  - Created visual measures and materials for experiments with preschool aged children
  - Utilized a computerized eye-tracking device for experiments
- Undergraduate Research Assistant* for Michael Gill, Ph.D. 2010 – 2011  
 Lehigh University Psychology Department, Bethlehem, PA
- Conducted research on the effects of personality, compassion and social explanations on emotions and behavior
  - Evaluated psychological literature and discussed existing limitations and future directions for research
  - Collected and organized data in the computer database
- Undergraduate Research Assistant* for Dominic Packer, Ph.D. 2010 – 2011  
 Lehigh University Psychology Department, Bethlehem, PA
- Conducted research on the effects of interpersonal factors on behavior in group situations
  - Proofread faculty manuscripts
  - Collected, coded and analyzed data
  - Piloted studies and checked for errors and fluency of the measures

#### TEACHING EXPERIENCE

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- Graduate Teaching Assistant* for Social Psychology 2011  
 Lehigh University Psychology Department, Bethlehem, PA
- Provided students with individual assistance on course material, exams, and essays
  - Graded quizzes, exams, and essays
  - Presented a course lecture on relationships and power
- Graduate Teaching Assistant* for Introduction to Psychology 2011  
 Lehigh University Psychology Department, Bethlehem, PA
- Provided students with individual assistance on course material and exams
  - Administered class review sessions for exams
  - Presented three course lectures on social psychology and social cognition

#### LEADERSHIP

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- Dean's Graduate Student Advisory Council, representative 2012 – Present  
 Lehigh University, Bethlehem, PA
- Psychology Department Graduate Committee, representative 2012 – Present  
 Lehigh University, Bethlehem, PA

#### SKILLS

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Proficiency in SPSS, SAS, and Microsoft Excel