

I Don't Want the Money, I Just Want Your Time:

How Moral Identity Overcomes the Aversion to Giving Time to Pro-Social Causes

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Abstract

Four studies show that moral identity reduces people's aversion to giving time—particularly as the psychological costs of giving time increase. In study 1, we demonstrate that even when the cost of time and money are held equivalent, a moral cue enhances the *expected* self-expressivity of giving time—especially when it is given to a moral cause. We found that a moral cue reduces time aversion even when giving time was perceived to be unpleasant (study 2), or when the time to be given was otherwise seen to be scarce (study 3). Study 4 builds on these studies by examining actual giving while accounting for the real costs of time. In this study we found that the chronic salience of moral identity serves as a buffer to time aversion, specifically as giving time becomes increasingly costly. These findings are discussed in terms of the time vs. money literature and the identity literature. We also discuss policy implications for prosocial cause initiatives.

Keywords: identity, time and money, moral identity, self-concept, moral self

“The best way to find yourself is to lose yourself in service to others.”

–Mahatma Gandhi

“Waste your money and you're only out of money, but waste your time and you've lost a part of your life.”

–Michael LeBoeuf

“It is the nature of the strong heart...it strives ever upward, even when it is most burdened.”

–Phillip Sydney

How do we determine whether to donate money or give time to prosocial causes? Money and time are valuable resources with different psychological properties (Mogilner, 2010; Okada & Hoch 2004). While spending money has been shown to promote happiness (Dunn, Aknin, & Norton, 2008), especially when spent in particular ways (Dunn, Gilbert, & Wilson, 2011; Aknin, Sandstrom, Dunn, & Norton, 2011; Dunn & Norton, 2013), simply *thinking about money* leads to anti-social behaviors such as being more self-focused, less helpful and fair towards others, and less sensitive to social exclusion (Zho, Vohs, & Baumeister, 2009; Vohs, Mead, & Goode, 2008; DeVoe & Pfeffer, 2007). By contrast, giving time to help others is also associated with distinctly prosocial outcomes. Giving time creates stronger interpersonal connections and other-focused behaviors (Mogilner, 2010; Liu & Aaker, 2008; Reed, Aquino & Levy 2007), leads to self-reflection and a reduction in cheating behaviors (Gino & Mogilner, 2014), and boosts perceived time affluence and self-efficacy. Giving time enables us to commit to future engagements with greater confidence and enthusiasm (Mogilner, Chance & Norton 2012). As a result, giving time leads to happiness and well-being (Aaker, Rudd & Mogilner 2011) and as the first quote suggests, may indeed be one of the deepest ways one can self-actualize.

Despite the benefits of giving time, it is associated with a number of perceived psychological costs. Compared to money, time is harder to account for and is less fungible (Saini & Monga, 2008; Zauberan & Lynch, 2005; Okada & Hoch, 2004). One can spend their time

doing lots of different things, but choosing what to do imposes a particular kind of opportunity cost by preventing them from doing other things. Although spending money also has opportunity costs, it is possible to exponentially increase one's pool of money. However, since we are all mortal, everyone's time is limited, and both the pauper and the billionaire are allotted the same 24 hours in a day to do what it is they want. Importantly, as the second quote above suggests, once these hours are lost they cannot be recovered. Time and money also differ because even though people are generally willing to exchange money with just about anybody, time is a more particularistic resource (Foa & Foa 1980), meaning people are much more selective when deciding with whom to exchange it (Blieszner, 1993). The differences between time and money just described lead us to propose a psychological principle that influences the willingness to expend time versus money on social causes: namely, all else being equal, the psychological costs associated with giving time should make people less willing to give time than money in service to a social cause. We refer to this phenomenon as *time aversion*. By "social cause" we mean any activity that requires a person to expend time or money voluntarily to benefit others. We focus on time aversion in the contexts of social causes because, as we noted above, it is when giving time on behalf of others that people tend to reap a variety of psychological benefits.

If indeed there are significant psychological benefits to giving time, yet a corresponding aversion to doing so, then time aversion may be a somewhat maladaptive psychological response – one with significant social consequences. An important question that emerges from this tension is: what factors lessen time aversion? Else put, what can be done to steer us away from this socio-psychological malady? In this paper we argue that "moral identity" (Aquino & Reed, 2002; Reed & Aquino 2003)—either when primed or chronically salient—can play such a role. Our central premise is that moral identity can lessen time aversion because people behave in ways

that affirm and reinforce their identities. Accordingly, a strong moral identity may reduce time aversion not *despite* the higher cost of giving time but rather *because* of it. Put another way, giving time more strongly reinforces the moral self, compared to giving money (Reed, Aquino and Levy 2007). Therefore, like the third quote above suggests, moral identity may be one source of a strong heart, i.e., a powerful motivator that reduces time aversion, especially as doing so becomes more and more psychologically costly.

We present four studies that show the effect of moral identity on reducing time aversion. In study 1, we demonstrate that even when the cost of time and money are held equivalent, a moral cue enhances the *expected* self-expressivity of giving time—especially when it is given to a moral cause. This suggests that even though giving time can in fact be costly, when people’s moral identities are salient they may come to perceive it as less so, thereby helping them overcome their time aversion. The next two studies were designed to be stronger tests of the effect of moral identity on time aversion. In both studies we directly manipulated the psychological costs of giving time and examined people’s self-reported preferences to give time (vs. money), as well as their expected reactions. We found that a moral cue reduces time aversion even when giving time was perceived to be unpleasant (study 2), or when the time to be given was otherwise seen to be scarce (study 3). Together, these two studies show that the effect of moral identity on time aversion is at least partially driven by an altered perception of the unpleasantness of time as well as an anticipated connection to those who receive the time. Study 4 builds on these studies by examining actual giving while accounting for the real costs of time. In this study we found that the chronic salience of moral identity serves as a buffer to time aversion, especially as giving time becomes increasingly costly (i.e., scarce).

The main theoretical contribution of this article is that it connects the (a) time vs. money and (b) identity research streams, and shows how they complement and inform one another. While some prior work suggests that an activated moral identity may create greater self-reported preferences to give time over money (Reed et al., 2007), this article explores the boundary conditions of giving time under conditions in which doing so is particularly difficult. This contribution is important from both *conceptual and practical* perspectives. Conceptually, it enriches both the time vs. money and identity research streams by providing insights that neither could provide on its own. For instance, the time vs. money literature finds that time fosters greater interpersonal connection than money does (Mogilner, Chance & Norton, 2012; Mogilner 2010), yet adding an understanding of how the act can and cannot reinforce an identity (Laverie, Kleine & Kleine, 2002) allows us to predict what might motivate people to overcome the psychological barriers to doing so. On the other hand, the identity literature argues that moral identity motivates people to connect with and help others (Reed & Aquino, 2003), yet adding time vs. money research allows us to better predict *how* people seek to connect: by giving time or money. Pragmatically speaking, donors, recipients, and society-at-large all benefit when people decide to give time, yet many people seem to have a strong aversion to this, especially as the costs of doing so increase. Thus, understanding how and what factors can overcome time aversion is an important research issue with real world import.

This article proceeds as follows. First we describe our theoretical framework and review relevant background literature. Second, we present four studies that together demonstrate and provide evidence for the effect of moral identity on time aversion. Finally, we conclude with a discussion of future research directions and implications for practical issues such as persuasion for charitable organizations and public policy initiatives.

Theoretical Framework

Time is an Important Psychological Resource that People Are Averse to Giving: The time and money literature suggests that giving or just thinking about time (compared to giving money) has significant psychological benefits. For example, Mogilner et. al. (2012) found that when participants recalled a situation in which they spent time on others (compared to a condition in which they recalled spending time on themselves) they reported significantly higher reactions of feeling capable, competent and useful (Experiment 3, page 1236). Priming the concept of time makes people more self-reflective and reduces cheating behaviors (Gino & Mogilner, 2014). And because of its connection to forming meaningful experiences (Carter & Gilovich, 2010; Van Boven & Gilovich, 2003), giving time is closely associated with happiness and well-being (Mogilner, 2010). However, time is a particularistic resource with a unique opportunity cost associated with its finite supply (Reed & Aquino, 2003; Foa and Foa, 1974). This means that when it comes to giving time, the qualities of the person receiving the resource and the nature of the relationship between the giver and the receiver matters. As a result, people are more likely to spend time on close rather than distant others (Reed & Aquino, 2003; Blieszner, 1993). This may be one reason why simply priming the concept of time (compared to money) makes people more likely to plan to spend time with family and friends (Mogilner, 2010). It also makes them more likely to actually socialize instead of work (Mogilner, 2010; experiment 2 page 1352). Therefore, giving time imposes a kind of unique psychological cost in the sense that it demands some ability to relate to and care about the beneficiary. This is why we might be more miserly about giving time to strangers than money, especially as the perceived pace of life accelerates (Levine, 2008). Put another way, giving time is psychologically more demanding than giving money. Thus, as time is a unique and precious resource that once lost can never be recovered, people may have a

significant aversion to giving it away, especially to strangers or distant others (Reed & Aquino 2003).

People Are Less Time Averse when Giving Time Reinforces Identity: This article asks the question: what might help a person overcome time aversion — especially as the psychological costs of giving time increase? The answer may partially lie in the extent to which the act of giving time is or is not reflective of and rooted in a person's identity. Research shows that both situational cues and individual differences can activate particular identities or aspects of the self (Reed, 2004). Once these identities are activated, people then seek to reinforce them through identity consistent behaviors (Oyserman, 2007). One of the reasons they do so is to affirm for themselves and express to others that they hold that identity. A study by Laverie, Kleine & Kleine (2002) found that an identity becomes more important to the self when “more opportunities exist to enact and receive feedback from others (social commitments),” and “more positive and self-enhancing feedback is experienced” (page 668). This independent appraisal mechanism is at least one way in which we determine if our behaviors are consistent with our identities, and one way in which we assess different kinds of behaviors that have the strongest ability to strengthen our self-image (Laverie et. al 2002; Kleine et. al 1993; Solomon 1983). It is well accepted that people have multiple identities (Ashmore, Deaux, & McLaughlin-Volpe, 2004). This begs the question: what identity might be reinforced by giving time to prosocial causes? In response to this question, this article places *moral identity* center stage.

Moral Identity Reduces Time Aversion Even As The Cost of Time Increases: Broadly defined, morality is a meaning system of principles and values that determine what is right and wrong and what is good or bad conduct for an individual and or society. Definitions of morality can vary across different cultures (Graham, Meindl & Beall 2012)¹, as well as the extent to

which an individual may ascribe these values to the moral dimensions of their own identity (Blasi, 1980). We define moral identity as a self-schema organized around a set of moral traits (e.g., fair, honest, kind) – traits that commonly come to people’s minds when they are asked what it means to be moral (Aquino & Reed, 2002). Moral identity activation varies across situations. Consistent with trait activation theory (Tett & Burnett, 2003), situational cues can activate moral identity. This brings moral identity to the forefront of peoples’ minds and prompts them to act consistently with it (Finnel, Reed, & Aquino, 2011). In addition to being triggered by situational cues, the chronic salience of moral identity (how important this identity is to a person’s self-definition) varies across individuals (Aquino & Reed, 2002). The higher the chronic salience, the more easily moral identity is activated (see Higgins, 1996), and the more it motivates moral judgments and behaviors (Aquino & Reed, 2002). Thus, both situational cues and individual differences may trigger cognitions and behaviors that reflect compassion, kindness, and other traits associated with moral identity (Aquino & Reed, 2002). As moral cognitions and behaviors lead people to seek human connection (Reed & Aquino, 2003), they may become more willing to spend time on strangers or distant others. Accordingly, this may reduce their default aversion to doing so. Hence, our central premise is that the subjective experience of a strong moral identity, whether this state is chronic or temporarily primed, can diminish time aversion because people are more likely to behave in ways that affirm and reinforce this identity. As a result, people are more likely to prefer giving time than money to a social cause precisely because it is *more* costly to give. Put another way, compared to giving money; giving time more strongly reinforces the moral self (Reed, Aquino and Levy 2007) because it requires a greater expenditure of effort and is a resource that, once given, cannot be taken back. We contend that costly sacrifices that are consistent with one’s commitment to a

given identity, in this case a moral one, will be more identity-reinforcing than less costly ones because it sends a stronger, more definitive signal to the self and others that this identity is experienced as being essential to one's self-concept.

The Effect of Moral Identity on Time Aversion Is Driven by Basic Human Needs: The effect of moral identity on time aversion is motivated by at least two basic human needs: (a) the need for self-expression; and (b) the need for human connection. Self-expressiveness is at least one answer to the question of why moral identity reduces time aversion. For instance, moral identity may drive people to show that they are moral individuals who are compassionate, kind, and so forth (Aquino and Reed 2002).² But how will people seek to express their moral identity if they have many possible ways of doing so? People faced with two options (e.g., giving time or money) will be motivated via self-appraisal (Laverie, et. al. 2002) to determine which one provides the most potent form of self-expression. All things being equal, people will choose the option that best reflects their self-image. People implicitly know that giving time better reflects the traits associated with moral identity than donating money does. As a result, those with a stronger moral identity will be more likely to give time as opposed to money. It is simply a matter of choosing the option that best reflects their self-image.

The need for human connection is another potential reason why moral identity reduces time aversion. Interpersonal connection is a fundamental human need (Baumeister & Leary, 1995) that lies at the core of numerous theories of motivation (ie. Alderfer, 1969; McClelland, 1961; Ryan & Deci, 2000). Giving time likely creates stronger interpersonal connections than donating money does. Moral identity has been shown to be an important motivational impetus to connect and help others in need (Reed, et. al., 2007), thereby facilitating interpersonal connection. Moral identity has been found to be associated with a stronger obligation to help not

only in-groups (e.g., friends and family) but also out-groups (e.g., strangers) (Reed & Aquino, 2003). Since moral identity encourages people to connect with others (Reed & Aquino 2003), and since giving time is more connecting than donating money is, it may be that moral identity reduces time aversion and may be particularly likely to do so as the psychological costs of time increase.

Summary of Predictions and Empirical Work

To summarize, we expect moral identity – whether situationally activated or chronically accessible – to reduce time aversion. We test the effect of moral identity on time aversion via two main predictions. First, we predict that moral identity enhances the expected self-expressivity of giving time as well as the anticipated connection with the recipient. Second, we predict that moral identity may reduce time aversion even as the psychological costs of giving time increase. We argue that it is precisely when giving time is costly that moral identity has its greatest effect on time aversion. That is, moral identity may reduce time aversion not *in spite* of the higher costs of giving time, but *because* of them (see Oyserman, 2007).

STUDY 1: A MORAL CUE REDUCES AVERSION TO GIVING TIME BECAUSE GIVING TIME TO A MORAL CAUSE ALIGNS THE ACT WITH ONE'S IDENTITY

Study Overview

Study 1 tests an underlying core assumption of this article. The aversion to giving time can be reduced by moral identity—and that one reason this can happen is that giving time (compared to money) has inherently stronger self-expressive properties. This can potentially align moral identity with giving time. Therefore, we predict that people will expect the giving of

time to be more self-expressive especially when the time is allocated to a moral purpose and that this reduction in aversion to time is enhanced in the presence of a moral cue. The study is a 2 (Moral Identity Activated vs. Not Activated) x 2 (Moral vs. Non-Moral Cause) between-subjects design. One hundred and sixty-eight panel members at a university behavioral lab (students, administrative staff, and local area community residents) (55 males, 113 females) completed three tasks: (1) a general opinion survey that measured impression management, (2) a handwriting task containing the moral identity activation manipulation, and (3) a hypothetical donation request capturing self-reported preferences to give time vs. money. After these and other unrelated tasks, participants were paid \$10 and debriefed.

Moral Identity Activation

The moral identity activation manipulation was a writing task (see appendices for all measures and manipulations used in this article). The task's purpose was purportedly "to examine people's handwriting styles." Participants received nine words, copied each one four times, and wrote a story about themselves that used each one at least once. In the moral identity activated condition, the words were traits that people commonly associate with being a moral person (Aquino and Reed 2002) (e.g., kind). In the moral identity not activated condition, the words were positive traits unrelated to morality (e.g., polite) (See Appendix A for this manipulation). After writing their story, respondents completed manipulation checks and questions that bolstered the cover story. The manipulation checks revealed that participants in the moral identity activated (not activated) condition thought their stories were more (less) reflective of how they saw themselves as moral people ($M_{\text{NotActivated}} = 4.68$, $M_{\text{Activated}} = 5.40$), $F(1, 161) = 6.26$, $p < .05$, Partial $\eta^2 = .04$.

Hypothetical Donation Request

After the handwriting task, participants completed an ostensibly unrelated Hypothetical Donation Request. They were told that the American Marketing Association (AMA) wished to assess people's perceptions of and desire to volunteer different kinds of resources for fundraising efforts. Participants read about a particular AMA fundraising effort, with the nature of the effort manipulated in the manner described below. Participants then completed the measures described below.

Morality of the Cause. We manipulated the morality of the cause. In the moral cause condition, the AMA was purportedly developing a grassroots community campaign to raise awareness of the need for college students to get involved early in volunteer activities (e.g., promoting human rights). In the non-moral cause condition, the AMA was purportedly developing an advertisement and persuasive communication campaign to promote and sell marketing services to companies. Since aid recipients are relatively needier in the first case, we reasoned that the first cause would be perceived as relatively more moral (See Appendix B for this manipulation). Manipulation checks completed at the end of the study confirmed this: compared to participants in the non-moral cause condition, those in the moral cause condition believed their resources would be going to a more moral cause ($M_{\text{NonMoralCause}} = 2.40$, $M_{\text{MoralCause}} = 3.78$), $F(1, 160) = 25.54$, $p < .001$, Partial $\eta^2 = .13$.

Self-Expressiveness. Participants indicated how much they agreed (1 = Strongly Disagree, 7 = Strongly Agree) with ten statements concerning the extent to which giving to the cause would be self-expressive (e.g., "Participating in this fundraising effort would reflect the type of person that I am.") ($\alpha = .95$). See Appendix C for this measure.

Donation Preferences. Participants then imagined that they came to the lab one day and were given three options for aiding the cause: donate \$5 (they would give \$5 of their \$10

compensation for the day's session to the cause), donate \$5 worth of their time (they had no pre-existing obligations and would spend time after the session helping with mailings for the cause), or do neither. They then indicated what they would likely do (1 = "No Thanks! I prefer not to donate," the midpoint = "Donate \$5 in cash money," and 10 = "Donate \$5 worth of my time."), such that larger numbers reflected a relatively higher preference for giving time vs. money.³

Control Variables. We controlled for four variables (age, gender, religious participation, and impression management) that may influence preferences for giving time vs. money (Gilligan, 1982; Myers, 2000; Paulhus, 1989; Putnam, 2000; Reed et al., 2007).

Results

Self-Expressiveness. Table 1 shows means, standard deviations and correlations amongst all study variables. The first analysis was an ANOVA predicting self-expressiveness of giving. The predictors were the control variables, the main effects of the moral identity activation condition and the moral cause condition, and the moral identity activation x moral cause interaction. A positive main effect of impression management emerged, $F(1, 159) = 12.96$, $p < .01$, Partial $\eta^2 = .08$. We also found a main effect of moral identity activation (activating moral identity increased self-expressiveness), $F(1, 159) = 18.30$, $p < .001$, Partial $\eta^2 = .10$, and a main effect of the moral cause manipulation (making the cause moral increased self-expressiveness), $F(1, 159) = 25.89$, $p < .001$, Partial $\eta^2 = .14$. However, more important to our key predictions, we found a moral identity activation x moral cause interaction, $F(1, 159) = 4.89$, $p < .05$, Partial $\eta^2 = .03$. Follow-up analyses showed that activating moral identity increased the perceived self-expressiveness of giving, but only when the cause was moral, $F(1, 159) = 22.98$, $p < .001$, Partial $\eta^2 = .13$, rather than non-moral, $F(1, 159) = 2.44$, n.s. See Figure 1 (left panel).

Insert Table 1 and Figure 1 about here

Donation Preferences. We ran an ANOVA predicting donation preferences, using exactly the same predictors as in the self-expressiveness analysis. A positive main effect of impression management emerged, $F(1, 162) = 16.16, p < .001, \text{Partial } \eta^2 = .09$. We also found a main effect of moral identity activation (activating moral identity pushed participants toward time and away from nothing), $F(1, 162) = 29.87, p < .001, \text{Partial } \eta^2 = .16$, and a main effect of the moral cause manipulation (making the cause moral pushed participants toward time and away from nothing), $F(1, 162) = 40.40, p < .001, \text{Partial } \eta^2 = .20$. However, these two effects were qualified by a moral identity activation x moral cause interaction, $F(1, 162) = 12.69, p < .001, \text{Partial } \eta^2 = .07$, which followed a pattern similar to that for self-expressiveness. Activating moral identity pushed participants toward giving time, particularly when the cause was moral, $F(1, 162) = 42.17, p < .001, \text{Partial } \eta^2 = .21$, rather than non-moral, $F(1, 162) = 1.62, \text{ n.s.}$ See Figure 1 (right panel).

Mediated Moderation. To test if self-expressiveness mediated participants' donation preferences, we used Muller, Judd, and Yzerbyt's (2005) procedure, which updates Baron and Kenny's (1986) approach to account for higher order interaction moderator effects. According to Muller et al. (2005), establishing mediated moderation requires estimating parameters for three regression models shown in Table 2 (referred to as Models 4, 5, and 6 in their terminology). Mediated moderation can be concluded when: (a) the first model shows that the moral identity activation x moral cause interaction significantly predicts preferences to give time vs. money, (b) the second model shows this same significant effect on self-expressiveness, (c) the third model shows that the effect of self-expressiveness on preference to give time vs. money is significant, and (d) the moral identity activation x moral cause interaction in the third model is reduced in

magnitude (or rendered non-significant) compared to the same parameter estimated in the first model. Throughout this article, continuous independent variables were mean centered to minimize multi-collinearity (Aiken and West 1991).

Insert Table 2 about here

As Table 2 shows, Muller et al.'s (2005) criteria for mediated moderation were met. Specifically, partial mediated moderation emerged, as indicated by the significant mediator in the third model and the two-way interaction's decrease in magnitude from the first to the third model.

Mediated Moderation Follow-Up. To better understand this pattern of results, we tested for simple mediation at different levels of the moral cause moderator (Muller et al. 2005, 861). First, we regressed the control variables and the moral identity activation condition onto self-expressiveness at each level of the moral cause manipulation. This analysis revealed that activating moral identity increased the perceived self-expressiveness of giving in the moral cause condition, $b = 1.21$, $t(81) = 5.19$, $p < .001$, but not in the non-moral cause condition, $b = 0.46$, $t(75) = 1.44$, n.s. We also conducted the same two regressions but with preference to give time vs. money (rather than self-expressiveness) as the dependent variable. We found the same pattern of results, such that activating moral identity increased preferences to give time vs. money in the moral cause condition, $b = 3.65$, $t(81) = 6.25$, $p < .001$, but not in the non-moral cause condition, $b = 0.87$, $t(75) = 1.50$, n.s. A final analysis examined the simple effect of moral identity activation on donation preferences at each level of the moral cause manipulation while controlling for the self-expressiveness mediator. We found that the partial mediated moderation effect above is driven by a simple partial mediation effect in the moral cause condition: in the moral cause

condition, activating moral identity triggers increased self-expressiveness that partially mediates an increased preference to give time vs. money.

Discussion

This study provides evidence that activating moral identity reduces the aversion to giving time, especially to a moral cause of which the beneficiaries are strangers or distant others. It also shows that one of the drivers of this reduction in time aversion is that people perceive giving time to be more self-expressive, but only when the cause is moral. Therefore, this study suggests that people are less time averse when presented with an opportunity to give time to a moral cause, especially when their morality identity is activated, and a key reason for this is that they see their efforts to be more self-expressive. This is consistent with our premise that giving time (especially to a moral cause) is more reinforcing to one's moral identity—as compared to giving money.

This study on its own provides only tentative, preliminary evidence of the buffering effect of moral identity on time aversion and the factors that drive it. While the desire for self-expression may be one source of motivation that reduces time aversion, there may be others. This study provides a promising yet limited glimpse of what these drivers behind this process might be. In addition, this study gives little insight into the effect of moral identity on time aversion in the face of increasing psychological costs. In this study, participants were asked to consider performing a relatively innocuous task (ie. sorting mail) for a subjectively determined period of time. Many forms of prosocial giving are far more psychologically demanding than this. Therefore, the next study was designed to specifically test the prediction that moral identity buffers against time aversion even in the face of psychologically demanding tasks.

STUDY 2: A MORAL CUE REDUCES AVERSION TO GIVING TIME WHEN THE TASK REQUIRED OF ONE'S TIME IS UNPLEASANT

Study Overview

This study's purpose is to directly manipulate the psychological cost of time. Participants were led to believe that giving time involved relatively neutral tasks (e.g., filing papers at a hospital) or relatively unpleasant ones (e.g., emptying bedpans at a hospital). This cost manipulation is useful because it may allow people to adjust their perceptions of the costs in a motivated fashion. While virtually everyone would agree that emptying bedpans at a hospital is unpleasant, people may adjust how pleasant they perceive the task to be depending on their ability to resist the aversion to giving such time. For example, someone who is highly motivated to give time may reason that volunteering will have some pleasant components, such as interacting with hospital patients. In this study, we propose that the presence of a moral cue will lessen aversion to giving time, and that participants will perceive giving time as relatively more pleasant. Hence, the presence of the moral cue will

Drawn from a university behavioral lab panel, 238 participants (88 males, 144 females) were randomly assigned to a cell in a 2 (Moral Identity Activated vs. Not Activated) x 2 (Volunteering Time High vs. Low on Unpleasantness) between-subjects design. The study consisted of two ostensibly unrelated tasks: the moral identity activation task from Study 2 and a donation task. After these and other unrelated studies, participants were debriefed and paid \$10.

Moral Identity Activation

Moral identity was activated using slide shows. The cover story stated that the task's purpose was to assess the effectiveness of a new software program designed to improve slide show quality. Participants were told that they would watch a randomly selected slide show that

had been modified using the software. Each slide show contained music, pictures, and quotes. In the moral identity activated condition, the pictures featured moral exemplars (e.g., Gandhi) and ordinary people helping each other, and the quotes focused on the same ideas as the photos (e.g., “Wherever there is a human being, there is a chance for kindness.”). In the moral identity not activated condition, the pictures featured ordinary people who were not helping each other (e.g., an elderly man), and the quotes focused on human behavior but not on moral behavior (e.g., “The search for human behavior is infinite. You’ll never understand it all.”). See Appendix D for this manipulation. After the slide show, participants completed manipulation checks and unrelated items that bolstered the cover story.

Donation Task

Participants first indicated how much one hour of their time was worth to them in dollars. Next, they read about the nonprofit university hospital on campus and imagined they were considering contributing to it. Specifically, they saw three options: volunteer one hour of their time, donate its equivalent in money (the amount they provided earlier), or do nothing.

Then participants read a paragraph and saw photographs depicting what they would do if they gave time. In the high unpleasantness condition, they learned that volunteering involved spoon feeding severely ill patients and replacing dirty urine cups and bedpans. In the low unpleasantness condition, they learned that volunteering involved tidying up and putting clipboards and chairs in their proper place (See Appendix E for this manipulation). In a pretest on a separate sample ($N = 68$), those exposed to the high (low) unpleasantness condition rated volunteering as more (less) unpleasant ($M_{\text{HighUnpleasantness}} = 3.91$, $M_{\text{LowUnpleasantness}} = 2.88$), $F(1, 63) = 8.18$, $p < .01$.

Next, participants indicated their donation preferences for giving time vs. money. They were told to consider three options: volunteering for one hour, donating the equivalent of one hour in money (the amount they wrote previously when asked how much one hour of time was worth to them in dollars), or doing nothing. Participants indicated what they would most likely do on a 7-point scale (1 = “I would prefer to volunteer 1 hour of my time,” 4 = “I would be indifferent between volunteering 1 hour of my time and donating \$___ of my money,” and 7 = “I would prefer to donate \$___ of my money.”). If they preferred not to donate, they chose a separate option at the very bottom of the page that read, “I would prefer NOT to give money or time.” We reverse coded the item so that higher numbers corresponded to a higher preference for giving time. Also, we restricted the sample to the 210 participants who said they would contribute (as opposed to saying they would prefer not to contribute). After making their choice, participants were asked to think back to the information they received about volunteering time. They then rated how pleasant it would be to volunteer time in that way (1 = Not at all Pleasant, 7 = Extremely Pleasant).

Results

Main Analysis. Table 3 shows means, standard deviations and correlations amongst the study’s main variables. We ran an ANOVA predicting preferences for giving time vs. money. The predictors included all relevant control variables from prior studies (age, gender, religious participation, slide show quality, and agreement with views promoted in the slide show), the moral identity activation condition, the unpleasantness condition, and the moral identity activation x unpleasantness interaction. The analysis revealed a main effect of unpleasantness, such that participants in the high unpleasantness condition had a lower preference for giving time and hence a higher preference for giving money than those in the low unpleasantness condition,

$F(1, 201) = 50.17, p < .001, \text{Partial } \eta^2 = .20$. This effect was qualified by the predicted moral identity activation x unpleasantness interaction, $F(1, 201) = 7.73, p < .01, \text{Partial } \eta^2 = .04$. When volunteering time was high on unpleasantness, activating moral identity increased preferences for giving time vs. money, $F(1, 201) = 6.74, p < .05, \text{Partial } \eta^2 = .03$. However, when volunteering time was low on unpleasantness, activating moral identity had no effect on preferences for giving time vs. money, $F(1, 201) = 0.45, \text{n.s.}$ (see Figure 2, left panel).

 Insert Table 3 and Figure 2 about here

Process Evidence. In this study, we also sought process evidence as to how moral identity motivates volunteering time, especially when volunteering is unpleasant. Specifically, we reasoned that moral identity could motivate volunteering time through its effects on perceived task pleasantness. To test this idea, we ran a regression to conduct a mediated moderation analysis and found that all of Muller et al.'s (2005) criteria for mediated moderation were satisfied. See Table 4.

 Insert Table 4 about here

Specifically, perceived task pleasantness partially mediates the moral identity activation x manipulated unpleasantness interaction. When volunteering time was manipulated to be high on unpleasantness (but not when it was manipulated to be low on unpleasantness), activating moral identity caused participants to view volunteering time as more pleasant (see Figure 2, right panel). This higher perceived pleasantness in turn shifted participants' preferences away from giving money and toward giving time.

Discussion

Study 2 lends further support for the notion that activating moral identity reduces time aversion, yet it does so in the face of a specific psychological cost: spending time on expressly unpleasant tasks. This study also provides additional process evidence about the factors that drive this effect: namely, a decrease in the perceived unpleasantness of the tasks in question. Taken together, this study suggests that moral identity reduces time aversion to unpleasant tasks because people come to see these tasks as less unpleasant.

While this study fosters further evidence in support of the buffering effect of moral identity on time aversion and helps shed light on the psychological processes that may drive it, it still leaves underdeveloped; our understanding of this effect. Task unpleasantness may be one form of psychological cost that drives time aversion, but most prosocial acts are not so unpleasant as cleaning dirty bedpans. In the fast paced world of today, a more universally applicable cost of prosocial giving is the scarcity of time. In addition, we suspect that at the heart of many prosocial acts is the desire to help another person. These issues remained untouched by the first two studies. To account for these deficiencies we conducted study 3.

STUDY 3: A MORAL CUE REDUCES AVERSION TO GIVING TIME WHEN TIME IS SCARCE BECAUSE TIME CONNECTS THE GIVER TO THE RECEIVER

Study Overview

The purpose of this study is to directly manipulate the scarcity of time vs. money in order to see its effects on time aversion. We predict that a moral cue will lessen time aversion when time is scarce and that this be driven by the extent to which giving time provides the giver an expected sense that they feel a connection to the individuals who will receive the aid. In the study, 268 participants (104 males, 162 females, 2 preferred not to answer) were randomly

assigned to a cell in a 2 (Moral Identity Activated vs. Not Activated) x 2 (Time Scarce and Money Abundant vs. Time Abundant and Money Scarce) between-subjects design. They completed a moral identity activation task and an ostensibly unrelated donation task.

Moral Identity Activation

We used the same slide show manipulation that we used in study two. Compared to participants in the moral identity not activated condition, those in the moral identity activated condition reported that the slide show made them reflect more on their morality ($M_{\text{NotActivated}} = 3.41$, $M_{\text{Activated}} = 4.61$), $F(1, 243) = 38.78$, $p < .001$, Partial $\eta^2 = .14$.

Donation Task

The second task was purportedly about how college students manage time and money. Participants first indicated how much one hour of their time was worth to them in dollars.

Scarcity Manipulation. Next participants imagined that they were students and that they had a certain amount of time and money this semester, with the amounts manipulated depending on condition. Those in the time scarce and money abundant (time abundant and money scarce) condition learned that they had some but not a lot of spare time (money) and a lot of spare money (time). See Appendix F for this manipulation. At the end of the study, participants completed manipulation checks. As expected, participants in the time scarce and money abundant condition ($M_{\text{SpareTime}} = 2.80$, $M_{\text{SpareMoney}} = 5.97$) reported having less spare time, $F(1, 238) = 270.28$, $p < .001$, Partial $\eta^2 = .53$, and more spare money, $F(1, 238) = 265.97$, $p < .001$, Partial $\eta^2 = .53$, than those in the time abundant and money scarce condition ($M_{\text{SpareTime}} = 6.08$, $M_{\text{SpareMoney}} = 2.55$).

Donation Preferences. After the scarcity manipulation, participants imagined that one day during the semester, they were asked to give to the Global Fund, which fights AIDS,

tuberculosis, and malaria. The scale used was identical to the scale used in the previous study. Because we were interested in preferences for donating time vs. money and not in preferences for donating vs. not donating, we excluded participants who said they would not contribute at all, leaving 249 participants. For ease of presentation, we reverse coded participants' time vs. money preference such that the higher the number, the higher the preference to give time.

Expected Connection to Aid Recipients. Participants indicated their agreement with two statements about how connected they would feel to aid recipients if they donated as they specified (e.g., "After making this choice, I would feel very connected to the people benefiting from Global Fund aid.") (1 = Completely Disagree, 7 = Completely Agree). The responses were averaged ($\alpha=.88$). See Appendix G for this measure.

Control Variables. The control variables included all Study 1 control variables as well as slide show features that were rated as different across the two moral identity activation conditions (photo quality, positive affect, agreement with views promoted in the slide show).

Results

Donation Preferences. Table 5 shows means, standard deviations and correlations amongst all study variables. We predicted that those in the moral identity activated condition would show evidence of decreased aversion to giving time compared to those in the moral identity not activated condition, especially when time was scarce and money was abundant. We tested this hypothesis with an ANOVA predicting donation preferences. The predictors were the control variables, the moral identity activation condition, the scarcity condition, and the moral identity activation x scarcity interaction. We found a marginal main effect of age, such that older participants had lower aversion to giving time vs. money than younger ones, $F(1, 238) = 2.85$, $p < .10$, Partial $\eta^2 = .01$, and a main effect of scarcity condition, such that participants expressed a

lower aversion to giving whichever resource was less scarce, $F(1, 238) = 41.05, p < .001$, Partial $\eta^2 = .15$. These effects were qualified by a moral identity activation x scarcity interaction, $F(1, 238) = 9.21, p < .01$, Partial $\eta^2 = .04$. When time was scarce and money was abundant, participants in the moral identity activated condition expressed lower aversion to giving time rather than money more so than participants in the moral identity not activated condition, $F(1, 238) = 8.29, p < .01$, Partial $\eta^2 = .03$. However, aversion to giving time vs. money were similar across the moral identity activation conditions when time was abundant and money was scarce, $F(1, 238) = 0.88, n.s$ (see Figure 3).

 Insert Table 5 and Figure 3 about here

Connection to Aid Recipients. We predicted that participants who had expressed a lower aversion to giving time rather than money would expect to feel more connected to aid recipients, particularly when moral identity was activated. To test this hypothesis, we ran a hierarchical regression predicting expected connection to aid recipients with the following predictors: (1) the control variables (step 1), (2) preference for donating time vs. money, moral identity activation condition, and scarcity condition (step 2), and (3) all higher order interactions among the variables in step 2 (step 3). We found a main effect of gender, such that women felt more connected to aid recipients than men did, $b = 0.50, t(233) = 2.65, p < .01$, Partial η^2 in corresponding ANOVA = .03. A main effect of donation preference also emerged, such that participants expected more connected to aid recipients as they expressed a lower aversion to giving time rather than money, $b = 0.31, t(233) = 4.15, p < .001$, Partial η^2 in corresponding ANOVA = .13. This effect was qualified by a donation preference x moral identity activation interaction, $b = 0.30, t(233) = 2.73, p < .01$, Partial η^2 in corresponding ANOVA = .03.

Following up on the interaction (Aiken and West 1991; Irwin and McClelland 2001), we found that participants expected to be connected to aid recipients as the aversion to giving time decreased, particularly when moral identity was activated (Moral Identity Activated: $b = 0.61$, $t(233) = 7.38$, $p < .001$; Moral Identity Not Activated: $b = 0.31$, $t(233) = 4.15$, $p < .001$). Viewed another way, among those who indicated a lower aversion to giving time (one standard deviation above the mean on the preference measure), activating moral identity increased the expectation of connection to aid recipients, $b = 0.83$, $t(233) = 1.94$, $p = .054$, whereas among those who indicated a preference for giving money (one standard deviation below the mean), activating moral identity had no effect, $b = -0.44$, $t(233) = -1.34$, n.s. (see Figure 4). Thus, activating moral identity magnifies the benefits of giving time.

Insert Figure 4 about here

Discussion

Study 3 bolsters the evidence that moral identity reduces the aversion to giving time, yet it does so in the context of a psychological cost that is almost universally experienced in the modern-day world: time scarcity. This study also provides further evidence to highlight the motivational forces behind the buffering effect of moral identity on time aversion – in this instance by demonstrating that it enhances a perceived connection between moral agents and the beneficiaries of their time donations. Taken together, this study suggests that moral identity reduces time aversion even in the face of perceived time scarcity, and that a motivating factor that drives this effect is the desire for a felt connection between moral agents and the beneficiaries of their efforts, even if those beneficiaries are abstract and unspecified.

Although study 3 helps clarify the effect of moral identity on time aversion in the context of such an important real world cost as time scarcity, the scarcity manipulation in this study was admittedly heavy-handed as participants were told to imagine their time to be either *very* scarce or *very* abundant. In everyday life, there are far more gradients along the time scarcity continuum than these two polar extremes, and this study lacks the ability to understand potential nuances of time scarcity. Yet beyond any individual limitations of study 3, the ecological validity of all three studies so far further suffers in a number of other respects. First, it suffers from the scale used to measure the donation preference. In the real world, the choices of giving money or time (or neither) to a prosocial cause are often mutually exclusive. That is, people often choose to give *either* money *or* time, or neither – not some combination thereof. Second, these decisions are made by real people whose moral identities occupy a more or less central place in their working self-concepts, regardless of whether or not those identities are situationally activated, and the studies so far have paid no attention to moral identity as an individual difference variable. Third, all three studies so far have examined expressed behavioral intentions, not actual behavior. This is important, as what people say they will do may be starkly different from what they actually do – especially when it comes to prosocial behaviors involving real psychological costs. Fourth, all three studies so far have asked the participants to assess for themselves in the abstract the equivalency between their time and a certain amount of money. In the real world, however, people may not have such a finely tuned sense of the value equivalence of time and money, so there is some question as to how equivalent their value assessments really were. Fifth, none of the studies so far have involved prosocial acts that specifically involved real people; rather, they all involved prosocial organizations with individual beneficiaries who are assumed and unspecified. This may be particularly important in considering the possibility that a desire

for human connection may be driving the effect of moral identity on time aversion. Finally, while each of the previous studies measured expected benefits of giving time, none measured the *actual* benefits of doing so. In an attempt to account for all these deficiencies and enhance the ecological validity of the research presented in this article, we conducted a fourth study.

STUDY 4: A CHRONICALLY SALIENT MORAL IDENTITY REDUCES THE TIME AVERSION EFFECT ON ACTUAL BEHAVIOR ESPECIALLY AS REAL COSTS OF TIME INCREASE

Study Overview

Study 4 provides a behavioral test of our hypothesis that activating moral identity leads to a preference for giving time over donating money, especially when doing so is psychologically costly (previously tested in Study 3). It also seeks to extend the findings of Studies 1 and 2 by examining the differential psychological benefits of giving money versus time to prosocial causes. One-hundred and sixty-three undergraduate business students participated in this study for course credit⁴. Seventy-nine participants were male and their average age was 20.37 years ($SD = 1.69$). Participants were randomly assigned to one of two conditions (*moral identity activated vs. not activated*) and given the choice of donating \$5 of real money to a charitable organization or the equivalent value in time performing a charitable act for an individual aid recipient. Two months prior to the study, as part of a class they were required to take, all participants completed a pre-questionnaire that included a measure of moral identity centrality as well as other surveys unrelated to this study.

Study 4 used a different method of manipulating psychological cost than our previous study. Specifically, participants were asked to donate varying amounts of time as a function of how much they perceived their time to be worth at the very moment they were doing the

experimental task. Assessing the actual psychological cost of their time at the point of decision is important because of the significant implications time constraint can have on moral behavior. People may have virtuous intentions in the abstract but when faced with time constraints in the real world they can act in a manner that diverges sharply from their otherwise laudable intentions. As Darley & Batson (1973) showed, even seminary students who had just recited the “Good Samaritan” can be deterred from moral behavior when time is constrained.

Since time is a scarce and non-renewable resource, we expect that the amount of time people are asked to donate would exert a significant effect on their behavior. Simply put, the more time people are asked to donate to a charitable cause the less likely they should be to do so. Instead, when given the option to donate a sum of money that is equivalent to the value they place on their time, they should be more willing to donate that money. However, based on our theoretical model and the results of our previous findings, we expect this effect to depend on (a) the extent to which their moral identity is activated, and (b) the centrality of their moral identity to begin with (Aquino, Reed, Freeman, Lim, & Felps, 2009). In light of the findings from Study 3 that activating moral identity leads people to less aversion to giving time, we expect the perceived cost of their time to counteract this effect. In other words, the simple effect of preferring to give money as time becomes costly will be neutralized by activating moral identity. Importantly, this will occur regardless of whether or not one’s moral identity is chronically accessible. However, we hypothesize that when moral identity is not activated and this identity is not salient within an individual’s working self-concept, then the psychological cost of giving time will dominate the decision, thereby resulting in a decreased willingness to give time over money, especially as the amount of time in question increases. However, if moral identity is chronically accessible then even in the absence of moral identity activation people will be as or

more willing to give time versus money, even when the cost of time increases. In other words, a chronically accessible moral identity in a situation where moral identity is not made salient should allow people to overcome the motivation to choose money over time, even as time becomes more costly to give.

Moral Identity Centrality Measure

We measured moral identity centrality with the same five items from Aquino and Reed's (2002) measure (see Appendix H) used in Study 4 ($\alpha = .80$). Again, moral identity was assessed two months prior to the time when participants attended the lab to participate in this study. This procedure reduced the likelihood that participants' behavioral choices would be influenced by demand characteristics induced by completing the moral identity measure at the same time as their donation choice.

Moral Identity Activation

As in Study 1, moral identity was temporarily activated (i.e., made situationally salient) using a writing task. The purpose of the task was presented to participants as a way for the researchers to "understand how different types of self-image affect the way people tell stories about themselves." The participants received the same list of nine words as in Study 1 and were asked to write a brief story in which they described themselves with each word at least once. In the control condition the participants were told that the purpose of the task was to "understand how people relate to objects in their environment when telling stories about themselves." They received a list of nine common objects (ie. book, chair, desk, etc.) and were asked to write a brief story about themselves invoking each object at least once. Upon finishing their story, the participants completed a manipulation check in which they expressed their level of agreement with various statements about their story (1 = *strongly disagree*, 7 = *strongly agree*). Results

revealed that participants in the *moral identity activated (not activated)* condition wrote stories that made them feel significantly more (less) like moral people ($M_{\text{NotActivated}} = 4.27$, $M_{\text{Activated}} = 5.35$), $F(1, 161) = 32.60$, $p < .001$, Partial $\eta^2 = .17$.

Real Donation Request

After completing the writing task, participants were told that this research was being conducted in association with a charitable organization in palliative care that needs two types of support: (a) monetary donations; and (b) hand-written cards or letters to its loneliest patients. The participants were then randomly assigned one of two photos of patients purported to be in its care, together with a description of their life history and medical condition (see Appendix I for the patient descriptions). They were told that receiving a hand-written card can greatly lift the patient's spirits and provide them much comfort and solace in their final days.

The participants were then asked to indicate what hourly wage they would need to be paid *at that particular moment in time* to write a personalized card or letter to the patient. Upon entering their required hourly wage, the participants were asked to re-read the *moral identity activating (non-activating)* story they wrote at the beginning of the study. Those in the *moral identity activation* condition were then asked to indicate what their story says about their moral character, while those in the *non-activation* condition were asked to explain what their story says about the way they relate to objects in their everyday environment. This procedure was used to reinforce the moral identity manipulation just prior to their actual decision.

Participants were then presented with three options: (a) donate the \$5 they would have received for participating in the study to the charitable organization; (b) spend \$5 worth of their time writing a card or letter to the palliative care patient in question; or (c) donate neither the \$5 nor the equivalent amount of time writing to the patient. Those participants who opted either to

donate \$5 or nothing at all were instructed to continue with the survey. Those who opted to write a card or letter, by contrast, were given writing materials and instructed to write their card or letter by hand for the appropriate amount of time. This amount of time was calculated automatically by the computer, which converted the hourly wage the participants had indicated they would need to do the task and embedded the result into the donation choice itself (the formula for this automatic conversion was $60 \div \text{hourly wage} \times 5$). This made the cost of the time donation both salient at and proximal to the point in time when the participants were asked to make their donation choice. It also resulted in the generation of a new variable, which we refer to as “time cost”.

Post-Donation Outcome Variables

As in Study 1, after making their donation choice the participants were asked to indicate their level of agreement with ten statements about the extent to which their choice was self-expressive ($\alpha = .93$). As in Study 2 participants were also asked to indicate their level of agreement with four statements about how connected their choice made them feel to the palliative care patient ($\alpha = .92$). The name of the patient the participants were assigned was automatically embedded into in each of the four items. Participants were further asked to indicate their level of agreement with three statements about the extent to which their choice made them happy ($\alpha = .96$). Finally, the participants were asked to indicate their level of agreement with three statements about the extent to which their choice gave them a sense of meaning ($\alpha = .92$). For all of these statements the participants’ specific donation choice was automatically embedded into the statement itself.

Upon completing the study, participants who had chosen either to write to the palliative care patient or donate neither money nor time were given \$5 in cash. Only those who had chosen

to donate money were not given \$5 at the end of the study. After data collection was completed, all participants were debriefed and the money they donated was sent to the palliative care organization in question. Since participants were informed in the debriefing that the patient they wrote to was fictitious, a further \$5 was also donated to the palliative care organization on behalf of any participant who chose to write a letter so that their efforts to help alleviate the suffering of the terminally ill would not be in vain.

Results

Control Variables. As with the previous studies, we controlled for gender, age, and religious participation.

Donation Preferences. Table 6 shows means, standard deviations and correlations amongst all study variables. Although we presented the participants with three donation options (ie. donate money, give time, or neither), since we were primarily interested in the preference to donate time versus money, we further excluded from our analysis those who chose to donate neither money nor time ($N = 15$). For all analyses in which donation preference was the dependent variable, we only included those participants who had chosen either to (a) donate money, or (b) give time. As such, the donation preference variable was dichotomous and we coded it accordingly (0 = donate money; 1 = give time). Included among those who chose to give time was a number of participants who went above and beyond the call of duty. Having completed the writing task, seven participants indicated of their own accord that they would like to donate the \$5 they had earned to the palliative care organization anyway. After having exhausted the maximum allowable amount of time to write letters (as constrained by lab availability), a further six participants indicated a desire to return to the lab on another occasion to complete their allotted writing time. Four participants indicated a desire to do both.

We predicted that activating moral identity leads to a reduction in the tendency to give money over time when giving time is psychologically costly, particularly among those with a chronically accessible moral identity. In Study 4, psychological cost was operationalized in terms of the varying amounts of time that participants were asked to give based on how much they valued their time to conduct the task in question just prior to the point of making their donation choice. Since time is a non-renewable and fixed resource it is logical to assume that giving up more of one's time is more costly than giving up less.

Since our dependent variable was dichotomous we tested our three-way interaction hypothesis using hierarchical logistic regression. We entered the control variables, main effects, and all possible higher order interactions into the model in separate steps so we could assess improvement in model fit as a result of adding new predictors at each step. Table 7 shows the results of the logistic regression. The results show that the model with the three-way interaction fits the data significantly better than the model in Step 2, which does not include the three-way interaction (as indicated by a chi-square statistic of the difference between -2 log likelihood of each model), $\chi^2(1) = 26.26, p < .01$. Since the moral identity centrality scores gathered over two months prior to the lab study were unavailable for 12 of the participants who had not already been eliminated under other criteria, these participants were automatically excluded from this model. This, combined with the elimination of those who had chosen to donate neither money nor time, reduced the sample size from 139 to 114 for this particular analysis.

Insert Table 6 and Table 7 about here

We explored the pattern of the three-way interaction by examining the two-way interaction between the amount of time that participants would have to spend on the writing task

and moral identity centrality as measured by Aquino and Reed's (2002) internalization scale. We did so for each of the *moral identity activated* vs. *non-activated* conditions. We conducted separate binary logistic regressions on the preference to donate money or give time. In the *moral identity activated* condition we found no significant main or interaction effects. In contrast, in the *moral identity non-activated* condition we found a main effect of time cost ($B = -.49, p < .05$). More importantly, we found a significant interaction between moral identity centrality and time cost ($B = .07, p < .05$) in this condition. We examined the pattern of the two-way interaction with Hayes' (2012) PROCESS software, which allowed us to identify the incremental effects of the model at different levels of time cost and moral identity centrality. As can be seen in Table 8, time cost had an increasingly negative effect on the decision to give time as moral identity centrality decreased. Only those non-activated participants with the most chronically accessible moral identities were indifferent between donating money and time.

Insert Table 8 and Figure 5 about here

These results show that those whose moral identities were activated were essentially indifferent about the choice of whether to donate money or give time, regardless of their level of moral identity centrality or time cost. However, when moral identity was not activated those who were low in moral identity centrality were significantly more likely to donate money than give time, especially as the cost of giving time increased. As moral identity centrality increased, however, participants were not as affected by the cost of giving time. Indeed, they became steadily less aversive to giving time – so much so that those at the highest levels of moral identity centrality even had a small and very close to statistically significant preference to give time even as the cost of doing so increased.

Post-Donation Outcome Variables. In this study we also examined several possible outcomes of donating time. As can be seen in Table 9, we found that the choice of donating money over time significantly enhanced scores across all post-donation outcome variables measured. First, the decision to give time as opposed to money made the participants feel that their choice had been significantly more self-expressive, $b = 0.75$, $t(119) = 3.38$, $p < .001$. This decision explained a significant amount of the variance in self-expression scores, $R^2 = .25$, $F(4, 119) = 11.18$, $p < .001$. Second, the decision to give time as opposed to money made the participants feel that they were significantly more connected to the patients, $b = 1.81$, $t(119) = 8.07$, $p < .001$. This decision accounted for a large amount of the variance in perceived connection scores, $R^2 = .42$, $F(4, 119) = 23.38$, $p < .001$. Third, giving time instead of money made the participants feel significantly happier, $b = 0.79$, $t(119) = 3.28$, $p < .001$. The decision to do so explained a moderate amount of the variance in post-donation happiness scores, $R^2 = .15$, $F(4, 119) = 6.53$, $p < .001$. Finally, donating time rather than money also gave the participants a sense that they had done something significantly more meaningful, $b = 1.20$, $t(119) = 5.67$, $p < .001$. This decision accounted for a large proportion of the variance in post-donation meaningfulness scores, $R^2 = .33$, $F(4, 119) = 16.37$, $p < .001$.

Insert Table 9 about here

Discussion

The results of Study 4 support our prediction and qualify the findings of Study 3 by showing that activating moral identity does not in-and-of-itself lead to a preference to give time over money; rather, it reduces the likelihood that people will prefer to give money over time, especially as the cost of giving time increases. What Study 4 also shows is that in the absence of

a situationally activated moral identity, chronic accessibility of moral identity can still play a similar role in regulating people's preferences to give money or time. Study 4 further shows that for those who opt to give either time or money, giving time leads them to feel significantly higher levels of self-expressiveness, social connection, happiness, and meaningfulness. As result, Study 4 furnishes direct behavioral evidence that time and money are not psychologically equivalent, even though we tried to equate their economic equivalence by heightening participants' awareness of the value of their time.

GENERAL DISCUSSION

Giving time to a prosocial cause may have significant benefits, but doing so also confers unique and significant psychological costs. As a result, people generally have a significant aversion to giving time to strangers or distant others. In light of the psychological benefits of giving time to prosocial causes, as well as the socially desirable outcomes thereof, understanding the factors that lessen this time aversion is an important and potentially fruitful area of study. We have proposed that time aversion may be reduced by considering the extent to which giving time may reinforce identity – in particular, moral identity. In studying this issue, this article brings together two growing research streams in the social sciences: (a) the time vs. money stream and (b) the identity research stream. We build on previous work that has examined the potency of moral identity to affect prosocial behavior. For example, prior research has demonstrated that moral identity motivates individuals to engage in prosocial behavior when they consider their previous prosocial acts (Conway & Peetz, 2012), or when they otherwise engage in immoral behavior (Mulder & Aquino, 2013). Moral identity has further been shown to be an important factor in motivating volunteerism over money donations (Winterich, Aquino, Mittal & Swartz, 2013). Finally, moral identity has been shown to be a key factor in motivating high

organizational status individuals to report intentions to give time over money to a community service organization (Reed, Aquino, & Levy, 2007; study 2 page 186). In that study, time was assumed to be a particularly costly resource for high organizational status individuals (e.g., executives and upper level managers). This suggests that moral identity may have an important role to play in motivating costly giving. We extend this body of research by exploring the impact of moral identity on reducing time aversion in the face of directly manipulated, increasingly onerous psychological costs.

Our studies have yielded several tentative conclusions. First, exposure to a moral cue reduces time aversion toward a prosocial cause, and this is related to an expectation that giving time over money is a stronger signal of self-expression (Study 1). Second, exposure to a moral cue causes people to view unpleasant volunteering tasks as less unpleasant, thereby leading them to report higher intentions to give time to a prosocial cause (Study 2). Third, not only do people expect to feel more connected to aid recipients when they think about giving time as compared to money, but exposure to a moral cue reduces their time aversion even when they expect their time to be scarce (Study 3). Finally, in a test of real behavior we find that the chronic salience of moral identity is a factor that reduces time aversion, even and *especially* as actual costs (scarcity) of time increase (Study 4). These findings are consistent with and extend previous research that identifies moral identity as an important factor in the self-regulation of pro- and anti-social behavior (Aquino et al., 2007; Reynolds & Ceranic, 2005).

Implications for Time vs. Money Research

Time vs. money research has touted the benefits of giving time relative to money. Compared to activating money, priming time makes people like products more (Mogilner & Aaker, 2009), leads people to engage in happiness promoting behaviors (Mogilner, 2010), and

boosts charitable giving (Liu & Aaker, 2008). Activating time also fosters interpersonal connection by leading people to spend time with loved ones (Mogilner, 2010). Giving time is also associated with happiness (Mogilner 2010). Even though giving money has benefits (Dunn & Norton, 2013; Dunn, et. al., 2011; Aknin, et. al., 2011), by contrast, making people think about money encourages people to be more independent and less reliant on others (Vohs et. al., 2008). Thinking about money actually causes people to engage in more immoral behavior (Gino & Mogilner, 2013). Our studies complement the existing time vs. money literature, finding that individuals who give time feel more connected to aid recipients and derive a greater sense of meaning from their actions. That people feel giving time leads to both a felt sense of connection and meaning is perhaps not coincidental, as bonding is nurtured by meaningful social interaction, which in turn increases social capital (Putnam, 2000). That money is a fungible commodity that people are prepared to trade with just about anybody suggests that it may not nurture a felt sense of meaningful exchange—even though the act itself helps those who receive the money. Therefore, that time is a unique and precious resource about which we are more discerning in our expenditures, indicates that it may be tied to a heightened sense of social meaning. Given the heightened value people place on their time, we further add to prior research by arguing that giving time can have costs that giving money does not, and by showing that even and indeed *especially* as these costs increase moral identity can serve to reduce time aversion (see Oyserman, 2009).

Implications for Identity Research

Identity research focuses on identity-based motivation. That is, activating an identity motivates people to think, feel, and behave in ways consistent with that identity (Verrochi & Williams, 2013; Oyserman, 2009). Moral identity has been shown to be a potent motivator,

encouraging people to act in ways that further the welfare of others (Aquino, Freeman, Reed, Lim, & Felps, 2009). This article supports that prior work, finding that when the costs of giving time are high people need exposure to moral cues – or alternatively a chronically salient moral identity – to help them overcome their time aversion. Study 2 suggests that activating moral identity may work in part because it changes perceptions of how unpleasant giving time may be. In that study, giving time was manipulated to be either low or high on unpleasantness. Compared to those whose moral identity had not been activated, those whose moral identity had been activated viewed the high unpleasantness task as less unpleasant. This lower perceived unpleasantness then drove their self-reported preference to give more time. Study 3 suggests that moral identity may further help people overcome time aversion by eliciting an expectation of felt connection to the beneficiary of their efforts. In that study, giving time was manipulated to be done under conditions of either perceived time scarcity or abundance. Compared to those in the control condition those whose moral identity was primed were better able to overcome their time aversion.

This evidence is consistent with recent research on identity and emotion regulation, which finds that identities are associated with specific emotions, which people want to match to their activated identities (Verrochi & Williams, 2013; Cameron & Payne, 2012). For example, activating athletic identity has been shown to motivate individuals to experience anger (so that they are pumped up and ready to compete) in a positive light. As a result, they attend more to anger inducing stimuli and upregulate this otherwise negative emotion to reverse the “anger aversion” tendency (e.g., by choosing angry songs to listen to when they work out (Verrochi & Williams 2013, experiment 2, page 210). Moral identity may be motivating a similar form of strategic attention deployment in our studies (see Verrochi & Williams, forthcoming; also

Reynolds, 2008). For example, as in study 2 whereby participants exposed to a moral cue reported less unpleasantness associated with an unpleasant task. These findings present intriguing avenues for future research that complement previous work on moral identity and emotions (Aquino, McFerran & Laven, 2011) such as empathy and compassion (Cameron & Payne, 2012; Kraus, Piff, Mendoza-Denton, Rheinschmidt & Keltner 2012; Detert, et. al 2008;)

We have shown that moral identity reduces the aversion to give time, and to facilitate this individuals may either focus on the pleasant aspects of an otherwise unpleasant volunteering task or an expectation of a felt connection to the beneficiary of their efforts. The findings of studies 3 and 4 are consistent with this idea and suggest that people whose moral identities are either primed or chronically accessible are not only motivated to give more time, but also feel more gratified when they do so. However, the fact that people actually feel more gratified by giving time irrespective of their moral identity (study 4) also suggests that doing so may appeal to an innate compulsion to give time in order to help others, despite the psychological costs incurred by doing so. Therefore, it may be that this effect may be driven by the anticipated sense of self-expression and connection that those with an activated moral identity feel they will derive from giving time. Yet ironically, regardless of what people expect to feel before giving time, our studies show that in actuality they experience higher levels of connection, meaning, self-expression, and happiness when they choose to do so (study 4).

Implications for Public Charities and Public Policy

This research has substantive implications for charities seeking donations of time rather than money (Aaker, Rudd, & Mogilner, 2011; Mogilner, 2010). For example, asking people how much time they will give to charity has been shown to draw their attention to how happy they will feel if they contribute. As a result, a “time-ask” effect is created by which they give more of

both money and time to charity (Liu & Aaker 2008). In light of our findings concerning the motivational power of moral identity in overcoming time aversion, it may be that activating moral identity would further magnify this time-ask effect. That is, asking people how much time they would like to give may be a particularly potent way of increasing temporal contributions to charity when moral identity is activated. In addition to showing that giving time makes people happier, our research suggests that giving time – whether hypothetically or in reality – makes people feel more self-expressive.

Our research also suggests that charities need to consider how psychologically costly giving time is for their target audience. If giving time is relatively low cost, then one would think that virtually all potential donors would opt to give (some) time. However, this research (study 4) suggests that while those with a less chronically salient moral identity may be willing to give time when the cost of doing so is low, those with a highly central moral identity may be less motivated to do so. Conversely, as the cost of giving time rises, those with a less chronically salient moral identity become far more aversive to giving time, while those with a highly central moral identity become more motivated to do so. Therefore, if charities wish to recruit volunteers for low time cost tasks they may be better off targeting individuals with whose moral identities occupy a less central role within their self-concept. Conversely, if they wish to recruit volunteers for tasks with a high time cost they may do well to target individuals whose moral identities occupy a more central role in their self-concept. As such, charities seeking donations of time may want to consider moral identity in their promotional materials and distribute those materials to the people known to have different levels of chronic moral salience.

Conclusion

Few studies have explored how the tradeoff of both positive (self-expressivity, connectedness, meaningfulness and happiness) and negative (unpleasantness, scarcity, etc.) psychological outcomes of giving time motivates people to do so even though an easier route (giving money) may also be available. The studies in this article contribute to this emerging literature. By bridging the gap between the time vs. money and identity research streams, we begin to answer the questions of *why* and *when* moral identity reduces time aversion in giving resources to prosocial causes.

References

- Aaker, J., Rudd, M., & Mogilner, C. (2011), "If Money Doesn't Make You Happier, Consider Time," *Journal of Consumer Psychology*, 21 (April), 126-30.
- Aiken, L. S., & West, S. G. (1991), *Multiple Regression: Testing and Interpreting Interactions*, Newbury Park, California: Sage.
- Aknin, L. B., Sandstrom, G. M., Dunn, E. W., & Norton, M. I. (2011), "It's the Recipient That Counts: Spending Money on Strong Social Ties Leads to Greater Happiness Than Spending on Weak Social Ties," *PloS One*, 6(2), 1-3.
- Alderfer, C. P. (1969), "An Empirical Test of a New Theory of Human Needs," *Organizational Behavior and Human Performance*, 4(2), 142-175.
- Aquino, K. F., & Reed II, A. (2002), "The Self-Importance of Moral Identity," *Journal of Personality and Social Psychology*, 83 (Dec), 1423-40.
- Aquino, K., Freeman, D., Reed II, A., Lim, V.K.G., & Felps, W. (2009), "Testing a Social-Cognitive Model of Moral Behavior: The Interactive Influence of Situations and Moral Identity Centrality," *Journal of Personality and Social Psychology*, 97(1), 123-41.
- Aquino, K., McFerran, B., & Laven, M. (2011). Moral identity and the experience of moral elevation in response to acts of uncommon moral goodness. *Journal of Personality and Social Psychology*, 100: 703-718.
- Ashmore, R. D., Deaux, K., and McLaughlin-Volpe, T. (2004), "An Organizing Framework for Collective Identity: Articulation and Significance of Multidimensionality," *Psychological Bulletin*, 130(1), 80-114.

- Baron, R. M., & Kenny, D.A. (1986), "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations," *Journal of Personality and Social Psychology*, 51 (Dec), 1173-82.
- Baumeister, R. F., & Leary, M. R. (1995), "The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation," *Psychological Bulletin*,
- Cameron, D. C. & Payne, K.B. (2012), "The Cost of Callousness: Regulating Compassion Influence the Moral Self-Concept," *Psychological Science*, 23(3) 225–229.
- Carter, T., & Gilovich, T. (2010), "The relative relativity of experiential and material purchases." *Journal of Personality and Social Psychology*, 98, 146-159.
- Conway, P. & Peetz, J. (2012), "When Does Feeling Moral Actually Make You a Better Person? Conceptual Abstraction Moderates Whether Past Moral Deeds Motivate Consistency or Compensatory Behavior", *Personality and Social Psychology Bulletin*, 38(7), 907-919.
- Darley, J. M., & Batson, C. D. (1973), "From Jerusalem to Jericho: A Study of Situational and Dispositional Variables in Helping Behavior," *Journal of Personality and Social Psychology*, 27(1), 100-108.
- Detert, J. R., Trevino, L. K. & Sweitzer, V.L. (2008), "Moral Disengagement in Ethical Decision Making: A Study of Antecedents and Outcomes," *Journal of Applied Psychology*, 93(2), 374-391.
- DeVoe, S. E., and Pfeffer, J. (2007), "Hourly Payment and Volunteering: The Effect of Organizational Practices on Decisions about Time Use," *Academy of Management Journal*, 50(4), 783-98.
- Dunn, E. W., Aknin, L. B., & Norton, M. I. (2008), "Spending Money on Others Promotes Happiness," *Science*, 319, 1687-1688.

- Dunn, E. W., Gilbert, D. T., & Wilson, T. D. (2011), "If Money Doesn't Make You Happy, Then You Probably Aren't Spending It Right," *Journal of Consumer Psychology*, 21, 115-125.
- Dunn, E. W., & Norton, M. I. (2013). *Happy Money: The Science of Smarter Spending*, New York: Simon & Shuster.
- Finnel, S., Reed II, A., & Aquino, K. (2011), "Promoting Multiple Policies to the Public: The Difficulties of Simultaneously Promoting War and Foreign Humanitarian Aid," *Journal of Public Policy and Marketing*, 30(2), 246-63.
- Gilligan, C. (1982), *In a Different Voice*, Cambridge, MA: Harvard University Press.
- Gino, Francesca and Cassie Mogilner (2014), "Time, Money, and Morality," *Psychological Science*, 25 (2), 414-421.
- Gino, F., Schweitzer, M.E., Mead, N.L., & Ariely, D. (2011), "Unable to resist temptation: How self-control depletion promotes unethical behavior," *Organizational Behavior and Human Decision Processes*, 151, 191-203.
- Goodwin, G. P., Piazza, J., & Rozin, P. (2014). Moral character predominates in person perception and evaluation. *Journal of Personality and Social Psychology*, 106(1), 148-168.
- Graham, Jesse, Peter Meindl & Erica Beall (2012), "Integrating the Streams of Morality Research: The Case of Political Ideology", *Current Directions in Psychological Science* December, vol. 21 no. 6, 373-377.
- Higgins, E. T. (1996), "The 'Self Digest': Self-Knowledge Serving Self-Regulatory Functions," *Journal of Personality and Social Psychology*, 71(6), 1062-83.
- Irwin, J. R., and McClelland, G.H. (2001), "Misleading Heuristics and Moderated Multiple Regression Models," *Journal of Marketing Research*, 38(1), 100-9.

- Kleine, R. E., Kleine, S.S., & Kernan, J.B. (1993), "Mundane Consumption and the Self: A Social Identity Perspective," *Journal of Consumer Psychology*, 2 (3), 209-35.
- Kraus, M. W., Piff, P. K, Mendoza-Denton, R., Rheinschmidt, M. L., & Keltner, D. (2012). Social class, solipsism, and contextualism: How the rich are different from the poor, *Psychological Review*, 119, 546-572.
- Kunda, Z. (1990), "The Case for Motivated Reasoning," *Psychological Bulletin*, 108(3), 480-98.
- Laverie, D. A., Kleine, R.E., & Kleine, S.S. (2002), "Reexamination and Extension of Kleine, Kleine and Kernan's Social Identity Model of Mundane Consumption: The Mediating Role of the Appraisal Process," *Journal of Consumer Research*, 28(4), 659-69.
- LeBoeuf, R. A., Shafir, E. & Bayuk, J.B. (2010), "The Conflicting Choices of Alternating Selves," *Organizational Behavior and Human Decision Processes*, 111(1), 48-61.
- Levine, R. N. (2008). *A Geography of Time: On Tempo, Culture, and the Pace of Life*, New York: Basic Books.
- Liu, W., & Aaker, J. (2008), "The Happiness of Giving: The Time-Ask Effect," *Journal of Consumer Research*, 35 (Oct), 543-57.
- McClelland, D. C. (1961). *The Achieving Society*, Princeton, NJ: D. Van Nostrand.
- Mogilner, Cassie, Zoë Chance, and Michael I. Norton (2012), "Giving Time Gives You Time," *Psychological Science*, 23 (10), 1233-1238.
- Mogilner, Cassie. (2010), "The Pursuit of Happiness: Time, Money, and Social Connection," *Psychological Science*, 21, 1348-54.
- , and Aaker, J. (2009), "The Time vs. Money Effect: Shifting Product Attitudes through Personal Connection," *Journal of Consumer Research*. 36(2), p. 277-91.

- Mulder, L. B. & Aquino, K. (2013), "The role of moral identity in the aftermath of dishonesty," *Organizational Behavior and Human Decision Processes*, 121, 219-230.
- Muller, D., Judd, C.M., & Yzerbyt, V.Y. (2005), "When Moderation is Mediated and Mediation is Moderated," *Journal of Personality and Social Psychology*, 89, 852-63.
- Myers, D. G. (2000), *The American Paradox: Spiritual Hunger in an Age of Plenty*, New Haven: Yale University Press.
- Okada, E. M., & Hoch, S.J. (2004), "Spending Time versus Spending Money," *Journal of Consumer Research*, 31(2), 313-23.
- Oyserman, D. (2007), "Social Identity and Self-Regulation," In Arie W. Kruglanski and E. Tory Higgins (Eds.), *Social Psychology: Handbook of Basic Principles* (2nd edition), New York: Guilford Press, 432-453.
- Paulhus, D. (1989), "Measurement and Control of Response Bias," In John P. Robinson, Phillip R. Shaver, and Lawrence Wrightsman (Eds.), *Measures of Social Psychological Attitudes*, New York: Academic Press, 17-59.
- Putnam, R. (2000), *Bowling Alone: The Collapse and Revival of American Community*, New York: Touchstone.
- Reed II, A. (2004), "Activating the Self-Importance of Consumer Selves: Exploring Identity Salience Effects on Judgments" *Journal of Consumer Research*, 31 (2) 286-95.
- , and Aquino, K.F. (2003), "Moral Identity and the Circle of Moral Regard towards Out-Groups," *Journal of Personality and Social Psychology*, 84 (Jun), 1270-86.
- , Aquino K.F., and Levy, E. (2007), "Moral Identity and Judgments of Charitable Behaviors," *Journal of Marketing* 71(1), 178-93.

- Reynolds, S. J. (2008), "Moral Attentiveness: Who Pays Attention to the Moral Aspects of Life?," *Journal of Applied Psychology*, 93(5), 1027-1041.
- Reynolds, S. J., & Ceranic, T. L. (2007), "The Effects of Moral Judgment and Moral Identity on Moral Behavior: An Empirical Examination of the Moral Individual," *Journal of Applied Psychology*, 92(6), 1610-1624.
- Ryan, R. M., & Deci, E. L. (2000), "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being," *American Psychologist*, 55(1), 68-78.
- Saini, R., & Monga, A. (2008), "How I Decide Depends on What I Spend: Use of Heuristics Is Greater for Time than for Money," *Journal of Consumer Research*, 34(6), 914-22.
- Shang, J., Reed II, A. & Croson, R. (2008), "Identity Congruency Effects on Donations," *Journal of Marketing Research*, 45(3), 351-61.
- Solomon, Michael R. (1983), "The Role of Products as Social Stimuli: A Symbolic Interactionism Perspective," *Journal of Consumer Research*, 10 (December), 319-329.
- Van Boven, Leaf., & Thomas Gilovich (2003), "To do or to have: That is the question. *Journal of Personality and Social Psychology*, 85, 1193-1202.
- Verrochi, N.C. & Williams, P. (2013) Feeling Like My Self: Emotion Profiles and Social Identity, *Journal of Consumer Research*, Vol. 40, No. 2 (August 2013), pp. 203-222.
- Vohs, K. D., Mead, N.L., & Goode, M.R. (2008), "Merely Activating the Concept of Money Changes Personal and Interpersonal Behavior," *Current Directions in Psychological Science*, 17(3), 208-12.
- Winterich, K.P., Aquino, K., Mittal, V., & Swartz, R. (2013), "When Moral Identity Symbolization Motivates Prosocial Behavior: The Role of Recognition and Moral Identity Internalization," *Journal of Applied Psychology*, 98(5), 759-770.

Zauberman, G. & Lynch, J.G. (2005), "Resource Slack and Propensity to Discount Delayed Investments of Time versus Money," *Journal of Experimental Psychology: General*, 134(1), 23-37.

Zhou, X., Vohs, K. D., & Baumeister, R. (2009), "The Symbolic Power of Money: Reminders of Money Alter Social Distress and Physical Pain," *Psychological Science*, 20(6), 700-706.

TABLE 1

Study 1: Means, Standard Deviations and Correlations amongst Independent and Dependent variables

Independent Variable(s)	Variable(s)										
	(α)	M	s.d.	(A)	(F)	(R)	(P)	(MI)	(MO)	(SE)	(D)
Age (A)		23.9	8.0	---							
Female (F)				.13**	---						
Relig (R)		2.41	2.49	.02	-.08	---					
Paulus (P)		3.19	.42	.41***	.19**	.03	---				
MoralID (MI)		.53	.67	-.09	-.04	.00	---	---			
Moralorg (MO)		.52	.50	-.07	.04	-.08	.00	.03	---		
SelfEx (SE)		3.78	.50	.12*	.11*	-.10	.30***	.31***	.36***	---	
Dependent Variables											
Donate (D)		4.21	3.32	.00	.08	-.11*	.25**	.37***	.41***	.71***	---

Note: ***p<.001, **p<.05, *p<.10

TABLE 2

Study 1: Self Expressiveness Partially Mediates the Joint Effects of Moral Identity Activation and Morality of the Cause on Donation Preferences

Variables	Model 4 (DV: Give Time vs. Money)		Model 5 (DV: Self-Expressiveness)		Model 6 (DV: Give Time vs. Money)	
	<i>B</i>	<i>t</i>	<i>B</i>	<i>t</i>	<i>B</i>	<i>t</i>
Age	-.023	-.852	.013	.964	-.033	-1.42
Gender	.313	.737	.163	.779	.024	.065
Religious Participation	-.071	-.884	-.034	-.871	-.026	-.385
Impression Mgt	1.84	3.74***	.827	3.41**	.812	1.85†
Moral Identity Activation (MI)	.811	1.42	.418	1.50	.323	.658
Morality of Cause (MC)	1.12	1.95*	.539	1.92†	.574	1.125
(MI) X (MC)	2.86	3.60***	.899	2.32*	1.49	2.03*
Self-Expressiveness (SE)	---	---	---	---	.982	5.72***
(MC) X (SE)	---	---	---	---	.463	1.74†
Model R ²	.40***	---	.30***	---	.58***	

Note: † $p < .10$ * $p < .05$, ** $p < .01$, *** $p < .001$

TABLE 3:

Study 2: Means, Standard Deviations and Correlations amongst Independent and Dependent variables

Independent Variable(s)	Variable(s)									
	(α)	M	s.d.	(a)	(f)	(r)	(prc)	(plc)	(p)	(c)
age (a)		20.00	2.10	---						
female (f)				.03	---					
religionnum (r)		1.24	1.11	.04	-.02	---				
primecond (prc)		.47	.50	.02	.02	-.05	---			
pleasantcond (plc)		.47	.50	-.11	-.08	-.04	-.04	---		
pleasant (p)		3.56	1.86	.12*	.17	.10	.06	-.44***	---	
Dependent Variables										
choice (c)		3.58	2.57	-.10	.02	-.08	-.01	.38***	-.54***	---

Note: ***p<.001, **p<.05, *p<.10

TABLE 4

Study 2: Perceived Pleasantness of Giving Time Partially Mediates the Joint Effects of Moral Identity Activation and Manipulated Unpleasantness on Donation Preferences.

Variables	Model 4 (DV: Give Time vs. Money)		Model 5 (DV: Perceived Task Pleasantness)		Model 6 (DV: Give Time vs. Money)	
	<i>B</i>	<i>t</i>	<i>B</i>	<i>t</i>	<i>B</i>	<i>t</i>
Age	.023	.329	.066	1.250	-.037	-.774
Gender	.264	.864	.315	1.348	-.036	-.170
Religious Participation	.214	1.629	.073	.725	.145	1.592
Agreement with Views in Slide Show	.053	-.272	.069	.461	-.118	-.878
Slide Show Quality	.240	1.901†	.264	2.739**	-.004	-.047
Moral Identity Activation (MI)	-.326	-.672	-.101	-.272	-.240	-.713
Manipulated Unpleasantness (MU)	-2.902	-7.092***	-2.005	-6.394***	-1.006	-3.234**
(MI) X (MU)	1.643	2.779**	.969	2.139*	.720	1.737†
Perceived Task Pleasantness (TP)	---	---	---	---	.903	9.742***
(MU) X (TP)	---	---	---	---	.076	.611
Model R ²	.28***	---	.29***	---	.66***	---

Note: † $p < .10$ * $p < .05$, ** $p < .01$, *** $p < .001$

TABLE 5

Study 3: Means, Standard Deviations and Correlations amongst Independent and Dependent variables

Independent Variable(s)	Variable(s)								
	M	s.d.	(a)	(f)	(r)	(p)	(s)	(cf)	(c)
age (a)	21.35	4.38	---						
female (f)			.05	---					
religionnum (r)	1.07	1.01	.12**	.01	---				
primecond (p)	.47	.50	-.06	.11*	.08	---			
scarcitycond (s)	.48	.50	-.04	-.03	-.06	.00	---		
connectfactor (cf)			.04	.14**	.03	.10*	.12*	---	
Dependent Variables									
choice (c)	2.45	2.57	-.07	.05	.06	-.08	-.36***	-.32***	---

Note: ***p<.001, **p<.05, *p<.10

TABLE 6

Study 4: Means, Standard Deviations and Correlations amongst Independent and Dependent variables

Independent Variable(s)	Variable(s)								
	M	s.d.	(f)	(a)	(w)	(p)	(t)	(i)	(dc)
Female (f)	.52	.50	---						
Age (a)	20.48	1.82	-.10	---					
Worship (w)	1.85	1.12	.12	-.06	---				
Prime (p)	.48	.50	.002	-.13	-.04	---			
Time (t)	64.47	91.71	-.06	.06	-.03	.11	---		
Internalization (i)	6.09	.82	.15	-.16	-.02	.05	.07	---	
Dependent Variables									
Donation Choice (dc)	.50	.50	.18**	-.09	.01	-.02	-.09	.11	---

Note: *** $p < .001$, ** $p < .05$, * $p < .10$

TABLE 7

Study 4 : Logistic Regression Model Estimation Results for Assessing Donating Money vs. Giving Time

Predictor	Step 1			Step 2			Step 3		
	<i>b</i>	Wald Chi-square	OR	<i>b</i>	Wald Chi-square	OR	<i>b</i>	Wald Chi-square	OR
Female (F)	.58 (.40)	2.11	1.78	.61 (.41)	2.26	1.84	.61 (.44)	1.93	1.83
Age (A)	-.07 (.12)	.42	.93	-.08 (.12)	0.40	.93	-.20 (.15)	1.96	.82
Worship		3.41			3.90			6.64 [†]	
Worship (1)	.47 (.54)	0.75	1.59	.50 (.55)	0.84	1.65	.66 (.59)	1.23	1.93
Worship (2)	-.98 (.68)	2.06	0.38	-1.11 (.70)	2.50	0.33	-1.60 (.76)	4.43*	.20
Worship (3)	.16 (.56)	0.08	1.18	.11 (.57)	0.04	1.12	.29 (.64)	0.20	1.33
Prime (P)	.15 (.40)	0.14	1.16	4.41 (3.30)	1.79	82.08	-12.57 (6.47)	3.78 [†]	0.00
Time (T)	-.001 (.002)	0.21	1.00	-.03 (.02)	1.85	0.97	-.60 (.21)	7.79**	0.55
Internalization (I)	.21 (.25)	0.68	1.23	-.16 (.37)	0.18	1.17	-2.05 (.86)	5.67*	0.13
P x T				-.002 (.005)	0.18	1.00	.59 (.22)	7.51**	1.81
P x I				-.66 (.54)	1.51	0.52	1.89 (.99)	3.62 [†]	6.63
T x I				.005 (.004)	2.00	1.01	.09 (.03)	7.89**	1.01
P x T x I							-.09 (.03)	7.65**	0.92
ΔR^2					0.04			0.14	
Nagelkerke R^2		.09			0.13			0.27	
Δ -2LL					4.210			14.548	
-2LL		150.501			146.291			131.743	
χ^2		7.50			11.71			26.26**	

Note: N = 114. OR = odds ratio. LL = log-likelihood

* $p < .05$. ** $p < .01$. $p < .001$. [†] $p < .10$.

TABLE 8

Study 4: Conditional Effect of Time Cost on Donation Choice at Different Values of Moral Identity Centrality for Non-Activation Condition

Moral Identity Centrality Percentile	Effect (SE)	LLCI	UPCI
10%	-.157(.068)*	-.291	-.023
25%	-.098(.043)*	-.183	-.013
50%	-.040(.019)*	-.077	-.002
75%	-.005(.007)	-.009	.018
95%	.019(.010) [†]	-.0003	.039

Note: N = 60

* $p < .05$. [†] $p = .054$

TABLE 9

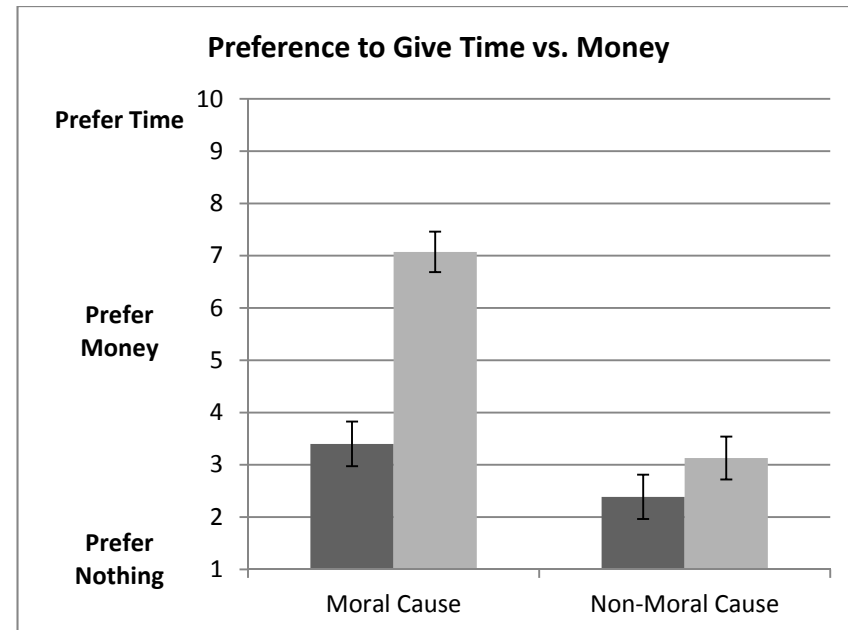
Study 4 : Multiple Regression Analysis on Donation Choice

	Self-Expressiveness		Connection		Happiness		Meaningfulness	
	β (SE)	<i>t</i>	β (SE)	<i>t</i>	β (SE)	<i>t</i>	β (SE)	<i>t</i>
Female (F)	.57 (.17)	3.38**	.51 (.23)	2.26*	.67 (.24)	2.76**	.84 (.21)	3.92***
Age (A)	-.07 (.05)	1.60	.07 (.06)	1.12	.03 (.07)	.43	.06 (.06)	1.06
Worship	.15 (.07)	2.09*	.34 (.10)	3.48***	.17 (.11)	1.61	.28 (.09)	2.43*
Donation Choice	.746 (.17)	4.48***	1.81 (.22)	8.07***	.79 (.24)	3.28***	1.20 (.21)	5.67***
Adjusted R^2	.25		.42		.15		.33	
<i>F</i>	11.18		23.38***		6.53***		16.37***	
<i>df</i>	4		4		4		4	
<i>N</i>	123		123		123		123	

* $p < .05$. ** $p < .01$. *** $p < .001$.

FIGURE 1

Study1: Activating Moral Identity Leads to Higher Perceived Self-Expressiveness of Giving and to Higher Self Reported Preference for Giving Time when the Cause is Moral



■ Moral Identity Not Activated ■ Moral Identity Activated

FIGURE 2

Study 2: Activating Moral Identity Shifts Peoples' Preferences Away from Giving Money and Towards Giving Time and Makes People Perceive Giving Time as More Pleasant, But Only When Giving Time is Manipulated to be Highly Unpleasant

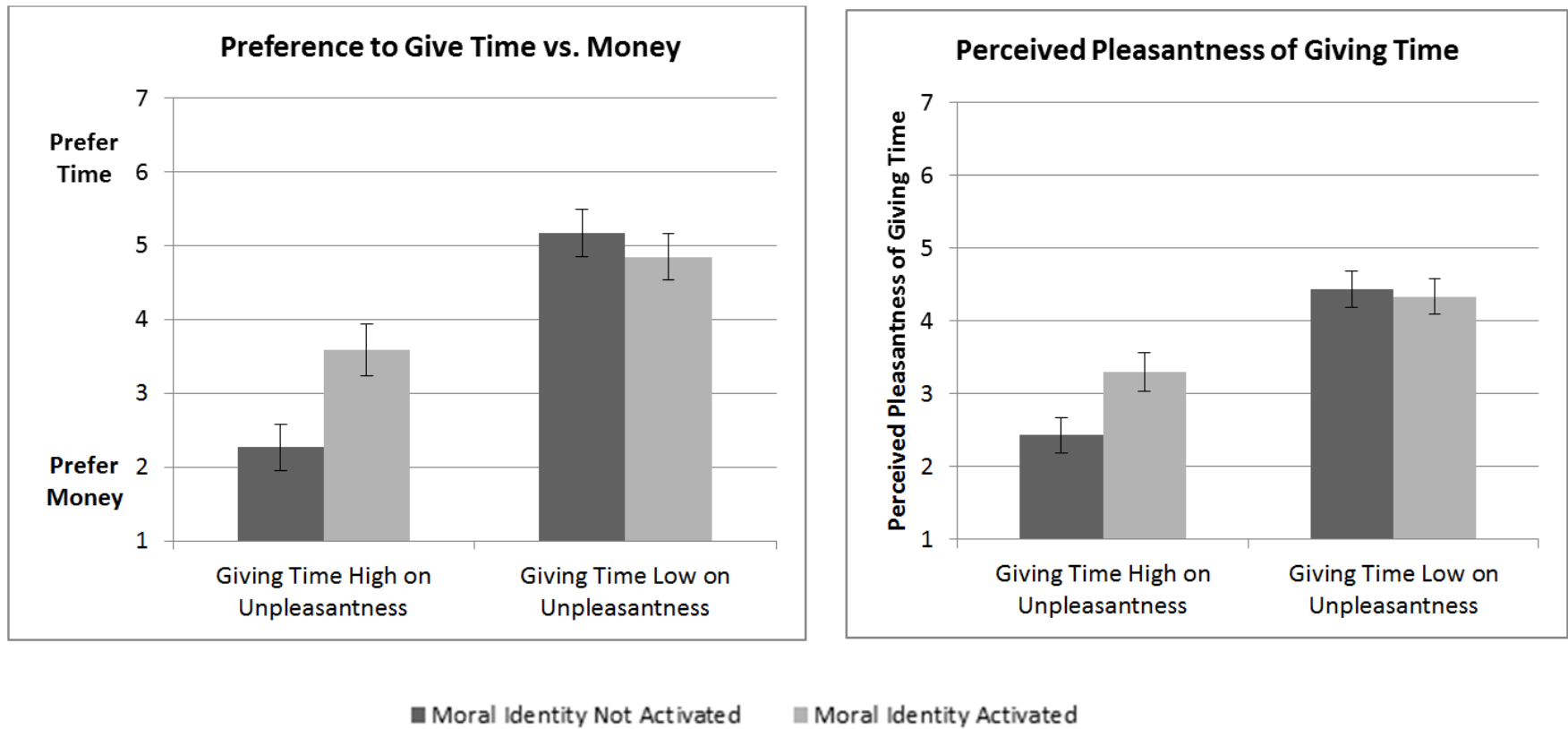


FIGURE 3

Study 3: Activating Moral Identity Causes People to Prefer Giving Time Over Money When Time is Scarce

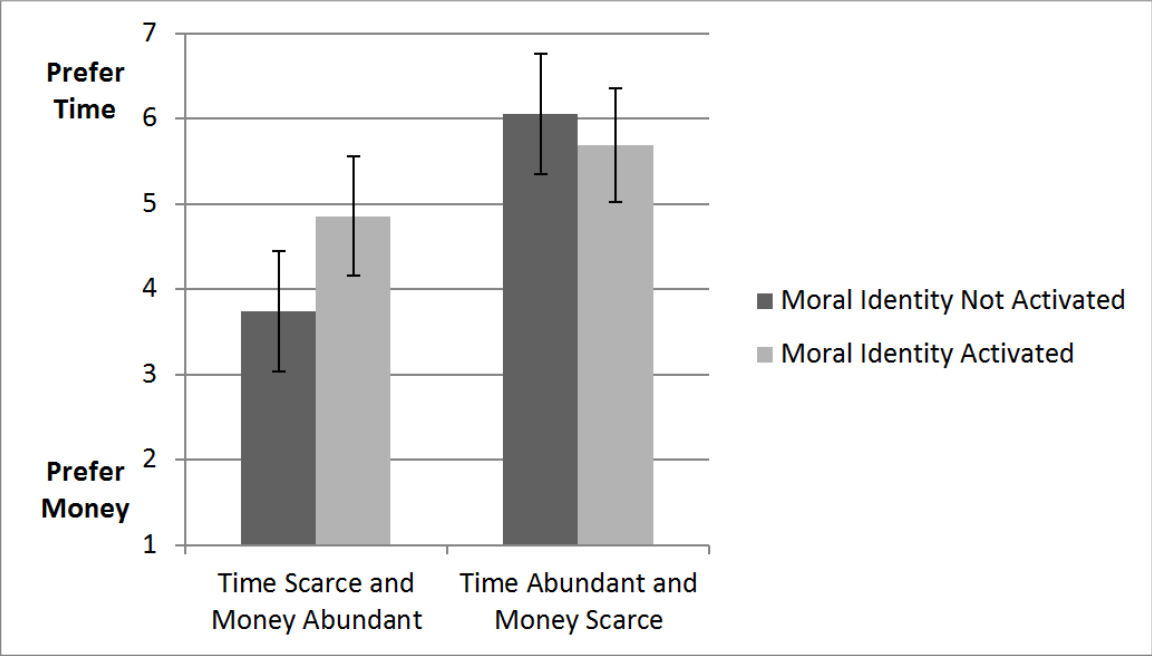


FIGURE 4

Study 3: Those Who Express a Preference to Give Time vs. Money Feel More Connected to Aid Recipients, Particularly when Moral Identity is Activated

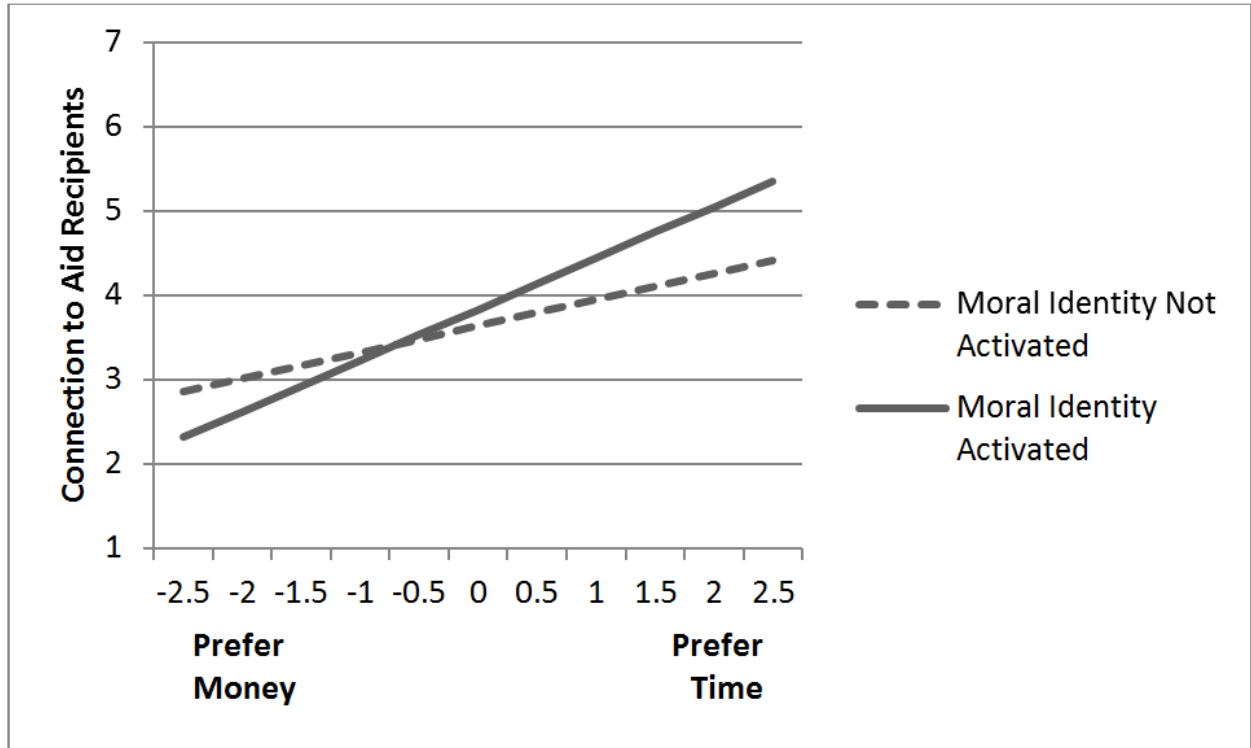
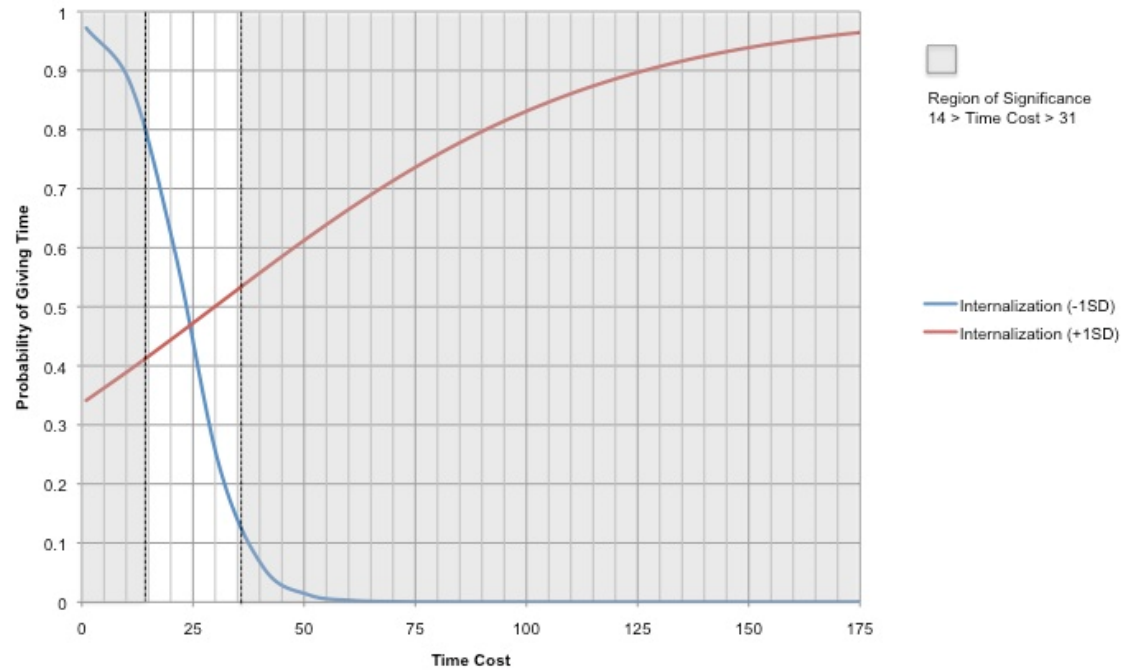


FIGURE 5

In the Non-Moral Prime Condition Moral Identity Centrality Leads to a Higher Probability of Giving Time, Even as Time Cost Increases



APPENDICES

APPENDIX A

Study 1: Writing Task Used to Manipulate Moral Identity Activation

The purpose of this exercise is to examine people’s handwriting styles as they tell stories. There is no right or wrong way of writing, so just relax and write in your natural style.

Listed below are nine words in alphabetical order.

Please take a few moments (about 5-10 seconds per word) to think about what each word means to you. Then follow the “Example” and write down each word 4 times in the boxes provided.

Moral Identity Activated

	(1)	(2)	(3)	(4)
Example	Example	Example	Example	Example
Caring				
Compassionate				
Fair				
Friendly				
Generous				
Hardworking				
Helpful				
Honest				
Kind				

Moral Identity Not Activated

	(1)	(2)	(3)	(4)
Example	Example	Example	Example	Example
Carefree				
Compatible				
Favorable				
Generally				
Happy				
Harmless				
Open-Minded				
Polite				
Respectable				

Now take a few moments to think about each of these words. In the box below, write a brief story about yourself (one or two paragraphs) which uses each of these words at least once. It may help if you visualize each word as it is relevant to your life.

APPENDIX B

Study 1: Moral Cause Manipulation

Moral Cause Condition

The AMA is soliciting help in developing a socially aware grass-roots level community campaign (e.g., public service announcements) to raise awareness of the need for college students to get involved early in volunteer activities and long-term activist goals (e.g., human rights and to help others in need in this country).

Non-Moral Cause Condition

The AMA is soliciting help in developing an advertisement and persuasive communication campaign (e.g., magazine ads and billboards) to promote and ultimately sell marketing related services to different companies in industry who may require assistance (e.g., to help companies gather and organize research, etc.).

APPENDIX C

Studies 1 and 4:

Self-Expressiveness, Connectedness and Happiness/Meaningfulness Measures

Participating in this fundraising effort would:

1 = Strongly Disagree, 7 = Strongly Agree

Self-Expressiveness:

Gives me a lot of intrinsic satisfaction
Feels like it was my voluntary choice
Feels like it was the right thing to do
Is deeply involving for me
Makes me feel good
Reflects the type of person that I am
Represents the kind of activity I often think about
Is an important priority for me
Represents "who I am"
Is a natural thing for me to do

Connectedness:

Makes me feel closely connected to the people who will benefit from ____.
Makes me feel like I really understand the people who will benefit from ____.
Makes me feel emotionally tied to the people who will benefit from ____.
Creates a strong bond between me and the people who will benefit from ____.

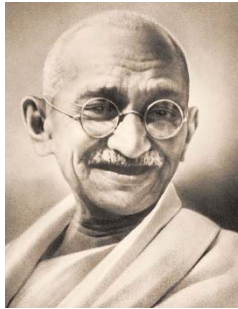
Happiness Meaningfulness:

Volunteering/donating made me happy.
I felt happy to volunteer/donate.
I felt happy as I was volunteering/donating.
Volunteering/donating gave me a sense of meaning.
I felt that I was doing something meaningful as I was volunteering/donating.
I felt that I was doing something meaningful at the moment I decided to volunteer/donate.

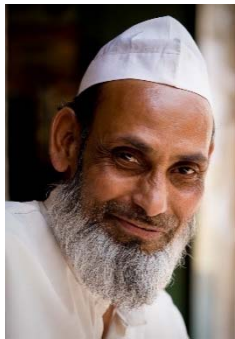
APPENDIX D

Studies 2 and 3: Sample Photos from Slide Show Used to Manipulate Moral Identity Activation

Moral Identity Activated



Moral Identity Not Activated



APPENDIX E

Study 2: Unpleasantness of Giving Time Manipulation

Giving Time High on Unpleasantness

If you volunteered time, you would go from one patient bedroom to another, feeding severely ill patients and replacing dirty urine cups and bedpans. This means you would spoon feed the patients, talking to them, wiping saliva and food from their mouths, and cleaning if they spit up or vomit as they were eating. As you fed them, you would try not to stare, even if they had highly visible wounds or symptoms of illness. When you were done feeding each patient, you would replace his or her dirty bedside urine cups and bedpans with clean ones. You would take the dirty ones to a designated area, where hospital staff would clean them. You would spend 1 hour volunteering for the Hospital in this way.



Giving Time Low on Unpleasantness

If you volunteered time, you would go from one patient bedroom to another tidying up and putting items in their proper place. For example, doctors sometimes leave patient charts on patients' tables or chairs rather than putting them at the room entrance or at the foot of patients' beds, and visitors sometimes move chairs from one room to another without putting them back. You would put these things back where they belong, based on hospital staff's instructions. If patients were awake when you entered their rooms, you would say hello. If they were asleep, you would work quietly and try not to disturb them. You would spend 1 hour volunteering for the Hospital in this way.



APPENDIX F

Study 3: Scarcity Manipulation

Time Scarce and Money Abundant

Imagine that you are a student. This semester, you got an on campus job that pays very well. As a result, you have a lot of spare money. Also this semester, you are taking hard classes that require a lot of studying. As a result, you have some but not a lot of spare time.

Time Abundant and Money Scarce

Imagine that you are a student. This semester, you got an on campus job that pays very poorly. As a result, you have some but not a lot of spare money. Also this semester, you are taking easy classes that require very little studying. As a result, you have a lot of spare time.

APPENDIX G

Study 3: Connection Measure

1 = Completely Disagree, 7 = Completely Agree

1. After making this choice, I would feel very connected to the people benefiting from Global Fund aid.
2. After making this choice, I would feel close to the people I was helping.

APPENDIX H

Study 4: Moral Identity Centrality Measure

Listed below are some characteristics that might describe a person:

Caring, Compassionate, Fair, Friendly, Generous, Helpful, Hardworking, Honest, Kind

The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, answer the following questions.

I = Internalization, S = Symbolization, R = Reverse Coded

- (I) 1. It would make me feel good to be a person who has these characteristics.
- (I) 2. Being someone who has these characteristics is an important part of who I am.
- (S) 3. I often wear clothes that identify me as having these characteristics.
- (I) 4. I would be ashamed to be a person who had these characteristics. (R)
- (S) 5. The types of things I do in my spare time (e.g., hobbies) clearly identify me as having these characteristics.
- (S) 6. The kinds of books and magazines that I read identify me as having these characteristics.
- (I) 7. Having these characteristics is not really important to me. (R)
- (S) 8. The fact that I have these characteristics is communicated to others by my membership in certain organizations.
- (S) 9. I am actively involved in activities that communicate to others that I have these characteristics.
- (I) 10. I strongly desire to have these characteristics.

APPENDIX I

Study 4: Palliative Care Patient Information



Jim Robinson is 82 years old and lives alone in a small home in Burnaby. Jim was born in 1932 in Kitimat, a small mining town in northern British Columbia. Jim's father worked in the aluminum processing factories. His mother was a housewife. When Jim was 10 years old, his mother died of pneumonia. With his father working long hours in the factory, Jim was left as primary caretaker for his two younger siblings. After working the aluminum factories for many years, Jim moved to Vancouver in 1963 to become a fisherman. Shortly thereafter Jim met the love of his life, Maureen. Jim and Maureen were married two years later. They had two children, Frank and Jessica. Sadly, Maureen and Jessica were killed in 1974 by a drunk driver. Jim continued to raise Frank as a single father. In 1984, however, Frank moved away to go to university, leaving Jim all alone. Frank became a chemical engineer and has since worked for oil companies all over the world. As a result, Jim has not been able to maintain a close relationship with Frank and has never gotten to know his grandchildren. Jim suffered a severe stroke two years ago, leaving the left side of his body paralyzed. More recently, Jim was diagnosed with colon cancer and given six months to live. While Jim has two good friends, he only receives a visit once every few weeks. As Jim deteriorates, he is increasingly reliant on the BCHPCS for basic care.



John Pritchard is 88 years old and lives alone in a small run-down condominium in Coquitlam. John was born an only child in 1927 in Toronto. John's father was a successful stock broker and his mother was a housewife. Until 1929 John's family was among the wealthiest in Toronto; however, when the market crash of 1929 hit they lost everything. Unable to cope, John's father committed suicide, leaving John and his mother to fend for themselves. John's mother moved them across the country to British Columbia to work as a labourer in the orchards of the Okanagan. Soon thereafter John's mother found a new husband, a real estate agent from Vancouver. Instead of getting a new father, however, John got an abusive alcoholic who beat him regularly. At the age of 16 John joined the army to get away from his step father. One year later, he was sent over to Europe where he stormed the beaches at Normandy. Although he survived, he was badly wounded and returned home from the war partially crippled and psychologically damaged. Ever since, John has never been able to lead a normal life. He has spent much of his adult life dealing with depression, moving in and out of psychiatric wards, on and off the streets. When his mother passed away in 1985, John received a small inheritance, which he used to buy the condominium he lives in now. John has been suffering from Parkinson's disease for many years, and he is now in its final stages. He has no friends and no family, and is now completely dependent on the BCHCPS to care for him.

ENDNOTES

¹ Graham et. al (2012) note that given this complexity, research should account for the extent to which a participant being observed would endorse that the behavior being studied on them meets that definition. In all our studies, we examine giving time or money to a prosocial cause, two acts that are seen as moral behaviors by the samples we study in this article.

² Research shows that moral character can be a critical component of person perception, in some instances more important than emotional characteristics such as “warmth” (Goodwin, Piazza, & Rozin, 2014).

³ We conducted a separate out of sample analysis to test whether or not having time = 10, and money = 5 changed participants perceived “value” of either resource. Three hundred (N = 330) participants were randomly assigned to a 2 (Morality of Cause: Low versus High) x 2 (Scale Order: Time at High End versus Money at High End) x 2 (Question Order of the Dependent Variable: Time Valuation First versus Money Valuation First) between-subjects design. All participants answered questions about how much their time ($\alpha=.82$) and their money ($\alpha=.83$) were worth to them as part of a cover story involving reactions to future measures to be used in a study (more details from this analysis are available from the first author). To test whether our scale influenced participants’ valuation of time versus money, we conducted a repeated-measures ANOVA with valuation of time and valuation of money as the within-subjects repeated measure and with the morality of the cause, the scale order, and the question order as between-subjects variables. All higher order interactions were included in the analysis. In addition, we controlled for the same main effects of age, gender, and religious participation that we controlled for in all of the studies reported in this article. If the scale order influenced participants’ valuations of time and money, leading them to value time relatively more than money, we would expect to see a significant two-way interaction between the within-subjects repeated measure and the scale order: participants would value time more than they value money when time is at the high end of the scale but would value money more than they value time when money is at the high end of the scale. In our analysis, this two-way interaction was not significant, $F(1, 327) = 0.41, p = 0.52$. This evidence shows that our scale most likely did not influence participants’ relative valuation of time versus money. Interestingly, it is important to note that these results show that there is NO bias of implicit higher valuation for either resource (time nor money) when it is placed at the upper end of the continuous scale.

⁴ Prior to analyzing the data, participants who failed a number of screening criteria were eliminated from the data set. The first criterion was whether a participant had spent too little time reading the description of the palliative care organization and its role in the study. Pre-screening revealed that it was unlikely the participants could fully read and comprehend the description in less than 20 seconds. Sixteen participants failed this criterion. The second criterion was whether a participant had spent too little time reading the description of the palliative care patient. Pre-screening revealed that it was unlikely the participants could fully read and comprehend the description in less than 30 seconds. Eleven participants failed this criterion. Third was whether a participant had failed an attention check randomly embedded in the post-donation follow-up questions. Three participants failed this criterion. The final criterion was whether a participant

had indicated that he or she had any suspicion about the veracity of the study. In order to assist us in probing possible suspicion about the letter-writing task, any participant who opted not to donate time was automatically prompted by the survey to explain why they chose not to do so. All participants were further asked at the end of the survey to indicate what they thought the study was about. Only two participants indicated any suspicion about the veracity of the study. After eliminating participants who failed to meet any of our screening criteria, our final sample size was 139. While the analyses yield the same conclusions (with even stronger statistical support) when we do not exclude any of the participants, we nonetheless opted to exclude them in order stay true to our screening criteria, as well as to eliminate as much potential noise from our data as possible.