Moral Accounting: How Consumers Spend Money Tainted by Guilt

HYUN YOUNG PARK

TOM MEYVIS

Hyun Young Park is Assistant Professor of Marketing at China Europe International Business School (CEIBS), Shanghai, China 201206 (hpark@ceibs.edu). Tom Meyvis is Professor of Marketing and Merchants' Council Professor of Retail Management and Consumer Behavior at New York University, Stern School of Business, New York, NY 10012 (tmeyvis@stern.nyu.edu). The authors thank Jonathan Haidt, Justin Kruger, Jonathan Levav, Vicki Morwitz, and Yaacov Trope for their helpful comments on an earlier version of this paper. Supplementary materials are included in the web appendix accompanying this article.

ABSTRACT

Given the prevalence of bounded morality and possibly tainted financial gains, this research examines how feeling guilty about money changes consumer spending. Extending the research on mental and emotional accounting, we propose that consumers also engage in "moral accounting": consumers spend money differently depending on the moral nature of the emotion (i.e., guilt) associated with the money. We show that tainting money with *moral guilt* resulting from a moral violation increases pro-social spending, whereas tainting money with *self-control guilt* elicited from a personal self-control failure increases self-improvement spending. Moreover, this effect of moral guilt (but not of self-control guilt) is magnified by consumers' self-importance of moral identity—confirming the moral nature of guilt as the driving factor underlying the differential guilt effects. We further find that moral guilt can be bound to money, leading to a pre-occupation with cleansing the money by spending some of it pro-socially, rather than engaging in other activities that could more effectively reinforce their moral identity (i.e., volunteering time). These results suggest that associating moral guilt with money—and focusing on that money instead of its moral implications for the self—acts as a proactive self-protection (vs. reactive self-repair) strategy against a self-threat.

keywords: moral accounting, mental accounting, emotional accounting, guilt, moral identity, compensatory consumption

The 2008 financial crisis stimulated fervent discussions about whether morality has lost its place on Wall Street and whether the money that the Wall Street financiers earn is morally tainted (The New York Times Room for Debate 2012; The Economist 2013). As evidenced by these discussions and commonly used terms such as dirty money and tainted money, people often have moral feelings about money. Ordinary consumers in mundane situations can also come across money that makes them feel morally uncomfortable—in particular, by evoking moral guilt. For instance, consumers may feel guilty about money when they receive a product refund by stretching the truth or when they obtain a pay raise by overstating their performance (Gino and Pierce 2009a). Indeed, research on consumer lying demonstrates that approximately 80% of consumers lie for financial benefits when given the chance (Anthony and Cowley 2012). Even when consumers do not commit explicit transgressions (e.g., lying), they can still feel guilty about money. For example, when people receive a reward greater than their partner's for an equal performance (Austin and Walster 1975) or survive alone in a layoff (Brockner and Carter 1985), the perceived inequity has been shown to trigger guilt toward their financial privilege. More generally, even average citizens can experience guilt with regard to their personal wealth when confronted with the sufferings of those who are worse off.

Given that people can feel guilty about money, does the moral guilt associated with the money change how they decide to spend that money? Despite ample evidence of people's bounded morality and resultant tainted financial gains (e.g., Ariely 2012), prior research has not examined how feeling guilty about money changes consumer spending, even though it has clearly demonstrated that consumers do not treat all money equally. Specifically, past research has shown that consumers spend money differently depending on how the money is mentally or emotionally categorized (e.g., Thaler 1999; Levav and McGraw 2009). For instance, O'Curry

(1999) shows that income can be categorized by how seriously or frivolously it was earned and then is spent in ways that matches this seriousness. Most relevant to the current research, Levav and McGraw (2009) have shown that the positive or negative *valence of feelings* associated with money impacts consumers' preference for utilitarian spending (Levav and McGraw 2009). However, no research to date has investigated how the *moral nature of feelings* associated with money impacts consumer decisions. To answer this question, we extend the findings of mental and emotional accounting to the moral domain by connecting them with the literatures on moral emotions (including guilt), moral identity, and compensatory consumption.

First, to examine how feelings of guilt about money influence spending, it is important to distinguish between two types of guilt. The guilt experienced in the examples discussed above—and of primary interest for this paper—is guilt that arises in a social context in which others' welfare was infringed upon (e.g., due to a moral transgression). This interpersonal guilt is also the type of guilt primarily studied in the social psychology literature. However, it is different from the type of guilt commonly studied in the consumer research literature, where the guilt being examined usually results from self-control failures that do not involve the interests of others (e.g., failing at one's diet goal). This difference in the social origin of guilt has implications for the moral nature of guilt as the moral emotions literature suggests that the moral degree of an emotion depends on the extent to which it involves the welfare of others (Haidt 2003). We will therefore refer to the interpersonal guilt (on which we will mainly focus) as "moral guilt" and to the guilt that results from individual failings that do not directly impact others as "self-control guilt." It should be noted that the moral nature of emotions varies along a continuum, and thus, self-control guilt may also have a moral component. However, we do

assume—and will later empirically demonstrate—that, to the extent that there is a moral aspect to self-control guilt, it is substantially less pronounced than for moral guilt.

Second, we expect that the moral nature of the guilt associated with money will change how consumers attempt to compensate for the guilt through their spending decisions. Depending on its moral degree, guilt may relate to a threat to different aspects of the self—i.e., a threat to the moral identity versus a threat to the self in a personal, non-moral domain. Furthermore, although there is some evidence for generalized, cross-domain compensation (e.g., Allard and White 2015; Heine, Proulx, and Vohs 2006; Monin and Jordan 2009; Steele 1988), the currently prevailing view is that compensation tends to occur within the original domain of self-threat (e.g., Mandel et al. 2017; Wicklund and Gollwitzer 1982). We therefore propose that guilt will activate a specific compensation process depending on its moral degree. Specifically, money tainted by moral guilt will be *more* likely to be spent on pro-social purchases, but *less* likely to be spent on self-improvement purchases, compared to money tainted by self-control guilt.

Third, since compensatory behaviors are most pronounced among consumers who regard the threatened domain as important (Wicklund and Gollwitzer 1982), consumers whose moral identity is central to their self-view will show a greater effect of tainting money with moral guilt on their pro-social spending. In contrast, moral identity should not change the effect of tainting money with self-control guilt. Such a differential moderation by moral identity would implicate morality as the key dimension on which the effects of moral versus self-control guilt diverge.

Fourth, consistent with the literature on mental and emotional accounting (e.g., Thaler 1999; Levav and McGraw 2009), we expect that feeling guilty about money will change spending of the tainted money but not of other, untainted money. In addition to examining the effect of guilt on different sets of money, we will also examine whether the spending of tainted

money can be substituted by spending of time instead. Testing fungibility between money and time becomes important when the label attached to money is moral, because studies on moral identity show that the moral self is better expressed, and thus reinforced, by pro-social spending of time than money (Reed et al. 2016). Yet, we expect that consumers will focus on giving the money rather than their time. By effectively binding the guilt to the money, consumers can avoid acknowledging the moral implications that the guilt has for the self—thus shielding the moral self-view from the threat.

We contribute to past research in several important ways. First, we extend the findings of mental and emotional accounting to the moral domain and introduce "moral accounting". We propose that the moral degree of a discrete emotion serves as an important moderator of emotional accounting effects (Levav and McGraw 2009). Consistent with this prior work, we predict that associating money with negative affect that is not explicitly moral (self-control guilt) increases utilitarian spending. However, when the money is associated with moral guilt, we expect it to increase self-sacrificial, pro-social spending instead. Second, we contribute to the guilt literature by distinguishing guilt based on its moral degree and examining its downstream consequences depending on this moral degree. Third, we enrich the moral identity and compensatory consumption literatures by proposing that compensation cannot only be specific to the victim (de Hooge et al. 2011) or to the domain of self-threat (e.g., intelligence or power; Rucker and Galinsky 2013; Lee and Shrum 2013), but also to the medium (i.e., money) involved in the compensation. That is, moral compensation can be specific to pro-social spending of the tainted money and does not generalize to other pro-social activities such as spending of untainted money or time (even though giving time (vs. money) has been shown to reinforce one's moral identity better; Reed et al. 2016). Finally, we also clarify the strategies consumers engage in to

protect their self-view under threat. We suggest that associating the moral guilt with the money—and focusing on cleansing that money—can act as a proactive (vs. reactive) compensatory strategy (Kim and Rucker 2012) that protects (vs. repairs) consumers' moral self-view from the threat resulting from their moral failure.

In the following section, we review the prior research that informed our moral accounting predictions, with regard to the roles of (1) the *moral nature* of guilt, and (2) the *association* between the guilt and the money being spent.

THE MORAL NATURE OF GUILT

Emotions vary in the degree to which they are considered moral. Specifically, emotions are moral to the extent that they are "linked to the interests or welfare either of society as a whole or at least of persons other than the judge or agent" (Haidt 2003, 853). In the case of guilt, this social dimension, and thus the moral nature of the emotion, has differed markedly between the types of guilt commonly studied in social psychology versus consumer research. In the social psychology literature, guilt usually arises from interpersonal contexts that involve the welfare of others and thus is viewed as a typical moral emotion. This view was established following a seminal review by Baumeister and colleagues (1994) that reinterprets guilt as an interpersonal (vs. intrapersonal) phenomenon, which is most commonly experienced in communal (vs. exchange) relationships that concern others' welfare (Haidt 2003). In contrast, in the consumer research literature, guilt typically arises from self-control failures that do not directly involve the interests of others, such as indulging in overly frivolous, unhealthy, or luxurious consumption (e.g., fatty desserts, designer sunglasses; Khan, Dhar, and Wertenbroch 2005; Kivetz and

Simonson 2002; Okada 2005; Strahilevitz and Myers 1998). Consumers indeed report feeling guilty after indulging in these activities (e.g., Ramanathan and Williams 2007) and more frequently mention instances of guilt relating to themselves rather than to others or to societal standards (Dahl, Honea, and Manchanda, 2003).

Consistent with Haidt's (2003) theorizing, we will refer to the guilt typically studied in social psychology and arising from concerns about others' welfare as "moral guilt" and to the guilt more commonly studied in consumer research and arising from failures to achieve personal goals as "self-control guilt." Although we will primarily study the effects of tainting money with moral guilt, we will also examine how these effects change when the money is tainted with self-control guilt. Note that we view the moral nature of guilt as a continuum. That is, self-control guilt can also include a moral component, but this moral dimension is markedly less pronounced than for moral guilt. It should also be noted that the experience of moral guilt does not require an explicit transgression such as lying or stealing. Simply perceiving unfairness after undeservedly receiving better treatment than others has been shown to trigger moral guilt (e.g., Austin and Walster 1975; Baumeister et al. 1994; Brockner and Carter 1985).

We propose that it is essential to differentiate guilt based on its moral nature as this will determine the compensatory consumer behaviors activated by the guilt. Given that guilt signals a failure of the self against self-held standards (e.g., Allard and White 2015), it constitutes a threat to one's positive self-view and thus should activate behaviors that can help repair the threatened self-view (see Mandel et al. 2017 for a recent review). Furthermore, although fluid, cross-domain compensation is possible (e.g., Heine et al. 2006; Steele 1988), compensation predominantly occurs within the original domain of threat (e.g., Rucker and Galinsky 2013; Wicklund and Gollwitzer 1982; Lee and Shrum 2013). For instance, when participants experienced a threat in

the domain of appearance, power, or intelligence, they respectively purchased appearance-enhancing products (e.g., necklace, lip gloss), high status signaling attire, or books to improve their intelligence (Hoegg et al. 2014; Rucker and Galinsky 2008; Kim and Gal 2014). Based on these findings, we propose that money tainted by guilt would activate compensatory behaviors in different domains depending on its moral nature. Specifically, moral guilt should increase pro-social actions (i.e., compensation within the moral domain), rather than increasing actions that mostly benefit the self. In contrast, self-control guilt should increase self-improvement actions (i.e., compensation within the non-moral domain), rather than increasing pro-social actions that mainly benefit others.

Although no research to date has examined how compensatory actions are affected by the moral nature of guilt, prior research on guilt resulting from self-control failures has observed an increased preference for virtuous or useful options for the self (e.g., Ramanathan and Williams 2007), whereas prior research on guilt caused by infringing upon others' welfare has observed an increase in pro-social actions (e.g., Baumeister et al. 1994; de Hooge et al. 2011), or even self-punishing activities rather than self-improving activities (Nelissen and Zeelenberg 2009). Our objective is to combine the insights from these two separate literatures using the moral nature of the activated guilt as the organizing principle and, in doing so, answer recent calls for insight into the conditions under which consumers prefer one compensatory behavior over another (Mandel et al. 2017; Rucker and Galinsky 2013). We hypothesize:

H1a: Compared to untainted money or money tainted with self-control guilt, money tainted with *moral guilt* is more likely to be spent on *pro-social* purchases.

H1b: Compared to untainted money or money tainted with moral guilt, money tainted with *self-control guilt* is more likely to be spent on *self-improvement* purchases.

Since we assume that moral guilt constitutes a threat to moral self-view, whereas self-control guilt does not, we further expect that individual differences in the self-importance of moral identity will moderate the effect of moral guilt, but not the effect of self-control guilt. The self-importance of moral identity represents the extent to which moral traits, such as being just and fair, are a central part of one's self-concept (Aquino and Reed 2002). Because compensatory behaviors are most pronounced among consumers who regard the threatened domain as important (Rucker and Galinsky 2013; Wicklund and Gollwitzer 1982), we expect that tainting money with moral guilt will lead to a bigger increase in pro-social spending for consumers high (vs. low) in moral identity—confirming the moral nature of this effect. In contrast, the effect of tainting money with self-control guilt should not be affected by moral identity. This differential moderation by moral identity would indicate that the increased pro-social spending of money tainted by moral (but not self-control) guilt is driven by the unique moral nature of the guilt.

H2: The self-importance of moral identity will magnify the effect of tainting money with moral guilt on pro-social spending of that money (i.e., H1a), but will not moderate the effect of tainting money with self-control guilt on self-improvement spending (i.e., H1b).

REDEEMING ONESELF OR CLEANSING THE TAINTED MONEY?

So far, we have proposed that money tainted by moral (but not self-control) guilt increases pro-social spending of that money. This raises the question whether this pro-social effect could extend to the spending of other, untainted money as well. Prior findings in the mental and emotional accounting literature suggest that this may not be the case. As Thaler observes (1999, p. 185): "money in one mental account is not a perfect substitute for money in another account." Consistent with this view, Levav and McGraw (2009) found that participants who received money from an ill (vs. healthy) uncle associated negative feelings with the money and were less likely to spend it on purchasing a hedonic item—an effect that was not obtained when those negative feelings (elicited from the news about an ill friend) were not associated with the money (received from a healthy uncle).

However, the experience of moral guilt may have a more generalized effect than the cognitive or emotional valence tags studied in previous research (e.g., associations with frivolousness or negative affect). If moral guilt is experienced in relation to a threat posed to their moral self-view, consumers may be motivated to engage in compensatory, pro-social behaviors even if it doesn't involve the tainted money. Moreover, although the prior literature has tested whether the effect of tagging money extends to other sources of money, it has not examined whether it extends to other, non-monetary resources, such as time—probably because investigating fungibility between sums of money is a stricter test than examining whether money is fungible with time. However, when money gets tainted with a *moral* emotion (e.g., moral guilt), spending time may actually be a particularly good alternative to spending the tainted money. Because giving time is perceived as more costly than giving money (Reed et al. 2016), it functions as a more powerful signal of traits related to the moral self, and thus as a more effective way to repair or reinforce one's moral identity. Indeed, as Reed and his colleagues

(2016) have observed, people are more motivated to give time rather than money when a moral cue activates their moral identity. This implies that receiving money tainted by moral guilt may not only motivate pro-social spending of the tainted money, but also pro-social spending of time. Although the money would be more closely associated with the guilt, donating time would be a more effective way to assert and repair one's moral identity.

Nevertheless, in spite of the general nature of the threat posed by moral guilt, and although time constitutes a more effective way to counter that threat, we expect that consumers will be motivated to isolate the guilt to the tainted money and focus on cleansing the money rather than repairing their moral self-view. As a result, the pro-social effects of the moral guilt may be limited to the spending of the tainted money. This proposed narrow focus on the tainted money follows from two prior, related observations: (1) guilt has a tendency to focus people on the source of the guilt and (2) people are motivated to avoid acknowledging the broader implications of the guilt for their self-view. First, guilt has been shown to "bind the [transgressor] to the source of guilt" (Izard 1977, p. 422). Most commonly, this results in a pre-occupation with the victim of the transgression. Transgressors who experienced moral guilt have even been found to act pro-socially toward the victim at the expense of a third person, indicating a strong preoccupation with the victim rather than a general pro-social orientation activated by the guilt (de Hooge et al. 2011). We propose that guilt can be similarly bound to money that resulted from the transgression (and thus constitutes a source of guilt), consistent with Levav and McGraw's (2009) finding that feelings can be attached to money. In other words, we propose that guilt can lead to a pre-occupation with the money resulting from the transgression, just as it leads to pre-occupation with the victim of the transgression. Second, by binding guilt to the money and focusing on cleansing that money, consumers can evade the broader moral implication of the

guilt for the self. Prior research suggests that guilty people try to isolate the guilt—and its negative implications for their self-view—by deconstructing their transgression, that is, by "shift[ing] awareness to low levels of action identification and minimal meaningfulness" (Baumeister et al. 1994, p. 259). Furthermore, since money tends to be construed more concretely than time (McDonnell and White 2015), associating guilt with money aids consumers in deconstructing their actions and avoiding the negative implications for their self. Consistent with this proposition, Gino and Mogilner (2014) show that activating the construct of money makes people reflect less on who they are compared to activating the construct of time. In other words, binding guilt to money may serve as a proactive (vs. reactive) self-defensive strategy that helps avoid reflecting on the moral implications that the transgression has for the moral self-view (Kim and Rucker 2012). Accordingly, consumers who have money tainted by moral guilt should be narrowly focused on cleansing the money by spending it pro-socially, rather than engaging in other pro-social actions (such as donating time) that help redeem their self-view. We therefore hypothesize a compensation that is specific to the tainted money:

H3a: Compared to situations in which moral guilt *is absent*, tainting money with moral guilt increases pro-social spending of that tainted money more than prosocial spending of other resources (untainted money or time).

H3b: Compared to situations in which moral guilt *is present but unrelated to the money*, tainting money with moral guilt increases pro-social spending of that tainted money more than prosocial spending of other resources (untainted money or time).

We next present a series of studies that tests our predictions using both scenario-based and actual guilt-induction methods. Studies 1A and 1B demonstrate that the moral nature of the guilt attached to money determines how consumers spend that money. Whereas tainting money with moral guilt increases pro-social spending (H1a), tainting money with self-control guilt increases self-improvement spending instead (H1b). Furthermore, study 1B demonstrates that the effect of moral guilt is magnified for those high in moral identity, whereas the effect of self-control guilt is not (H2). Study 2 replicates these effects using participants' own prior experiences in which they felt guilty about money. Next, study 3A replicates the effect of moral guilt using an actual guilt induction in the lab and further demonstrates that moral guilt increases pro-social spending of money more than pro-social spending of time (H3a), but that this only occurs when the guilt is associated with the money (H3b). Study 4A shows that moral guilt increases pro-social spending of the tainted money more than pro-social spending of other, untainted money (H3a). Study 5 demonstrates that the pro-social effect of tainting money is not limited to situations in which consumers actively transgress against others, but also occurs when they realize their financial privilege relative to others. Finally, study 6 shows that spending some of the tainted money in a pro-social way does reduce the moral taint associated with the remaining money, showing that consumers' effort to cleanse the tainted money is indeed effective. Aside from these seven main studies, we also briefly summarize the results of six additional studies (with additional details in the web appendix) that replicate these effects and further rule out alternative accounts in terms of changes in empathic concern for others (studies 1D and 4C), the windfall nature of tainted money (study 1C and 4B), consumers' feelings of undeservedness of the tainted money (study 3B), or consumers' motivation to maximize the fit between victim and recipient (study 4C) or to simply get rid of the dirty money (study 1B).

STUDY 1A: TAINTING MONEY WITH MORAL VERSUS SELF-CONTROL GUILT

Study 1A examined whether the effect of tainting money with guilt on consumers' spending decisions depends on the moral nature of the guilt. We expected that money tainted with moral guilt would increase pro-social spending (H1a), whereas money tainted with self-control guilt would increase self-improvement spending (H1b).

Method

Two hundred and twenty-nine participants were recruited through Amazon Mechanical Turk (MTurk). To ensure that participants read the instructions, we included an Instructional Manipulation Check (IMC) that asked participants to click on the "next" button to directly move to the next screen, instead of clicking on any of the scale items presented (Oppenheimer, Meyvis, and Davidenko 2009). Five participants failed the IMC and were excluded from all analyses. A similar procedure was applied to all subsequent studies using MTurk (see the web appendix for details).

We recruited participants who valued both being in physical shape and career achievement, as these were the relevant domains for, respectively, the guilt manipulation and the self-improvement measure. Participants were randomly assigned to one of three guilt conditions: moral guilt, self-control guilt, or control. All participants read a scenario in which they were determined to keep physically fit and thus registered for an annual gym membership. However, soon afterward, they cancelled the membership and received a $500 cash refund. In the control

condition, participants canceled the membership because they preferred to exercise outside. They were contractually eligible for the refund and thus received a legitimate refund. In the moral guilt condition, participants also canceled because they preferred to exercise outside, but they were not eligible for a refund unless they had a serious health issue. To obtain the refund anyway, they fabricated a health problem (a clear moral transgression). Finally, in the self-control guilt condition, participants canceled their membership because they did not have enough discipline to keep going to the gym and thus failed to live up to their health goals. As in the control condition, they were eligible for a refund and thus received a legitimate refund. In sum, whereas participants in both guilt conditions had a reason to feel guilty about their behavior, this guilt resulted from a moral transgression (lying to others) in the moral guilt condition, but from a personal self-control failure (lack of discipline) in the self-control guilt condition.

After reading the scenario, participants responded to emotion and morality manipulation checks, presented in a randomized order. Participants reported the extent to which they felt the following six negative moral emotions (1 = not at all; 9 = extremely): guilty, shameful, embarrassed, contemptuous, disgusted, and angry. Our target emotion was guilt, but we also measured five other negative emotions that have commonly been studied in the moral emotions literature (e.g., Tangney, Stuewig, and Mashek 2007) for possible secondary analyses following past research (e.g., de Hooge et al. 2011). Next, all participants reported the extent to which they felt dishonest, unethical, or immoral about receiving the refund (1 = not at all; 9 = very much).

Finally, participants were asked to allocate the $500 refund among the following three spending categories: (1) donating to a charity, (2) spending on ways to improve their career prospects (e.g., education, software, books, suits, seminars, etc.), and (3) spending on day-to-day needs (e.g., rent, utilities, bus/subway tickets, gasoline, etc.). By using career improvement,

rather than physical improvement, as the self-improvement domain, we could examine whether self-control guilt would result in fluid compensation across different non-moral domains. Spending on day-to-day needs was included as a third, base-line category because it reflected relevant expenses that were neither pro-social nor self-improving.

Results and Discussion

Self-reported guilt and feelings of immorality. As intended, participants in the control condition reported feeling less guilt (M = 2.28) than those in the moral guilt condition (M = 7.60; $F(1, 221) = 253.12$, $p < .001$) or in the self-control guilt condition (M = 6.54; $F(1, 221) = 135.00$, $p < .001$). The level of guilt reported in the two guilt conditions also differed ($F(1, 221) = 9.64$, $p = .002$), although this difference was much smaller than the differences between the control condition and each guilt condition. We observe a similar difference in the next study, in which we will also show that it is not this difference in guilt intensity, but rather the difference in the moral nature of the guilt that is driving the effects.

The three measures of feeling dishonest, unethical, or immoral about receiving the refund were highly correlated and combined to form an index of immorality ($\alpha = .98$). As expected, participants in the moral guilt condition (M = 7.52) reported feeling substantially more immoral about receiving the refund than those in the self-control guilt condition (M = 3.30; $F(1, 221) = 179.08$, $p < .001$) or those in the control condition (M = 1.68; $F(1, 221) = 358.07$, $p < .001$). Those last two groups also reliably differed from each other ($F(1, 221) = 22.84$, $p < .001$), suggesting that lack of self-control was perceived as somewhat immoral, though not nearly as much as telling a blatant lie. In sum, participants who lied or failed in self-control both felt

guiltier than those in the control condition, while the guilt experienced by those who lied was of a more moral nature compared to the guilt experienced by those who failed in self-control.

Finally, we compared guilt to the other emotions. As predicted by the moral emotion literature (Tangney et al. 2007), the three self-conscious emotions, guilt, shame, and embarrassment were highly correlated ($\alpha = .97$). However, participants in the two guilt conditions did report higher ratings for guilt than for each of the other emotions. As a similar pattern of results was observed across studies, we will focus on the guilt measure and report the other emotion measures for all studies in supplementary table 1 in the web appendix.

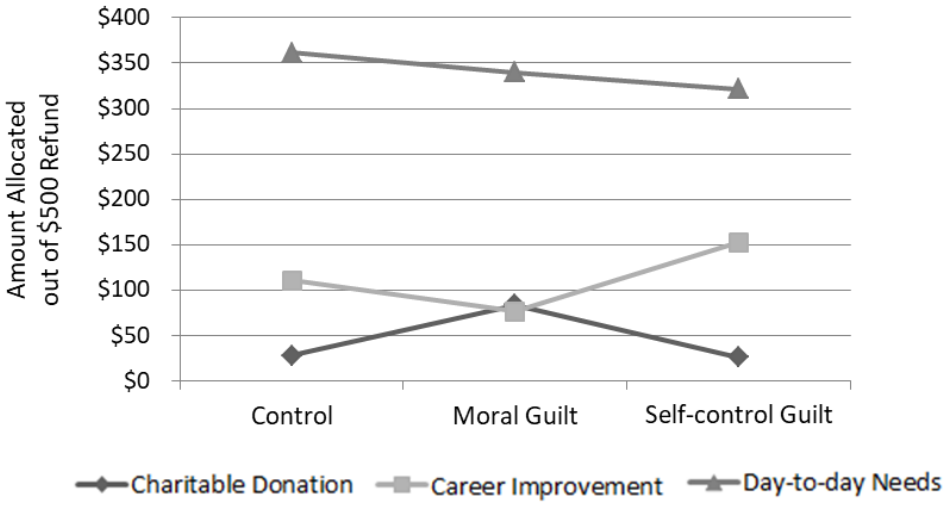
Refund allocation. In general, participants allocated the largest amount to day-to-day needs ($341), followed by career improvements ($112), and charitable donations ($46), indicating a general preference to spend the refund on the self rather than on others.

Next, we tested how the guilt manipulation affected the amounts allocated to these spending categories (figure 1). Consistent with H1a, tainting money with moral guilt increased charitable donations (M = $84) compared to when moral guilt was absent (M = $28; $F(1, 221) = 16.22$, $p < .001$) or when the money was associated with self-control guilt (M = $26; $F(1, 221) = 16.68$, $p < .001$). The donated amount did not differ between the last two conditions ($F < 1$).

Consistent with H1b, associating money with self-control guilt increased spending on career improvements (M = $153) compared to when the guilt was absent ($111; $F(1, 221) = 4.55$, $p = .034$) or when the money was tainted with moral guilt (M = $77; $F(1, 221) = 17.16$, $p < .001$). Note that moral guilt marginally *decreased* allocation to career improvement compared to the control condition ($F(1, 221) = 3.60$, $p = .059$).

There was no difference between any of the guilt conditions in the amount allocated to day-to-day needs (M_{moral} = $340, $M_{\text{self-control}}$ = $322, M_{control} = $361; all contrast F's < 1.08, NS).

FIGURE 1: AMOUNT ALLOCATED TO SPENDING CATEGORIES DEPENDING ON THE MORAL NATURE OF GUILT (STUDY 1A)



Discussion. Tainting money with moral guilt increased pro-social spending of that money, whereas associating money with self-control guilt increased self-improvement spending. Note that participants who failed in their fitness goal (i.e., in the self-control guilt condition) engaged in across-domain compensation by increasing their spending on career development. However, this across-domain compensation still took place within the non-moral domain, instead of occurring across the moral and non-moral domains. In sum, the moral nature of guilt associated with the money determined the type of compensatory spending—moral guilt motivated compensation via pro-social spending, whereas self-control guilt motivated compensation via self-improvement spending.

STUDY 1B: MORAL IDENTITY MODERATES THE EFFECT OF MORAL GUILT

Although we propose that the differential spending observed in the first study is due to differences in the moral nature of guilt, we cannot yet rule out that it is instead due to other, associated differences in the guilt manipulation, such as whether the money was legitimately earned or the difference in the type of victim (others vs. self). In this next study, we examined the moderating role of moral identity to test whether the guilt manipulation changes spending decision *through* changing the moral nature of guilt. Specifically, we examined whether the self-importance of moral identity magnifies the effect of tainting money with moral guilt on pro-social spending, but not the effect of associating money with self-control guilt on self-improvement spending (H2).

A secondary objective of this study was to further specify the type of expenses that increases when money is tainted by moral guilt. That is, we tested whether the effect of moral guilt extends from pro-social spending on distant others (e.g., donating to charity) to spending on close others (e.g., treating friends), to socially desirable spending on the self (e.g., saving), or to spending in ways that allow participants to "get rid of the dirty money" (e.g., paying off debt).

Method

Five hundred eighty-eight participants, who valued both career achievement and being in physical shape, were recruited through MTurk. Four participants failed the IMC and were excluded from all analyses (see the web appendix for details).

As in study 1A, participants were randomly assigned to one of three guilt conditions: moral guilt, self-control guilt, or control. They read the same gym refund scenario, but, unlike in study 1A, they responded to the spending measures *before* the manipulation checks, thus

ensuring that they were not affected by the manipulation checks. Participants first responded to the same refund allocation question as in study 1A. Next, participants responded to several measures that assessed their intentions to spend the money on close others, to spend it on the self in socially desirable ways, or to get rid of the money (see the web appendix for details).

Participants then responded to the 10-item Self-Importance of Moral Identity scale, which consists of two dimensions: internalization and symbolization (Aquino and Reed 2002). In keeping with prior studies, we measured both dimensions, but used only the internalization dimension in our analyses because internalization has been shown to be a more reliable predictor of moral behaviors, such as charitable donations (e.g., Lee, Winterich, and Ross 2014). Finally, participants were asked to recall the refund scenario and rate the six emotions as in study 1A. However, this time, they reported the extent to which they felt the emotions *when they thought about the refund*, in line with past emotional accounting research (Levav and McGraw 2009).

Results

Self-reported guilt felt towards money. Participants in the control condition felt less guilty about the refund ($M = 1.79$) than those in the moral guilt condition ($M = 6.74$; $F(1, 581) = 400.01$, $p < .001$) or in the self-control guilt condition ($M = 4.88$; $F(1, 581) = 154.86$, $p < .001$). As in study 1A, there was also a difference between the two guilt conditions in the reported level of guilt ($F(1, 581) = 53.97$, $p < .001$), albeit again smaller than the differences between the control condition and each guilt condition. We will later discuss why this difference in guilt intensity was not the driver underlying the spending effects observed in this study.

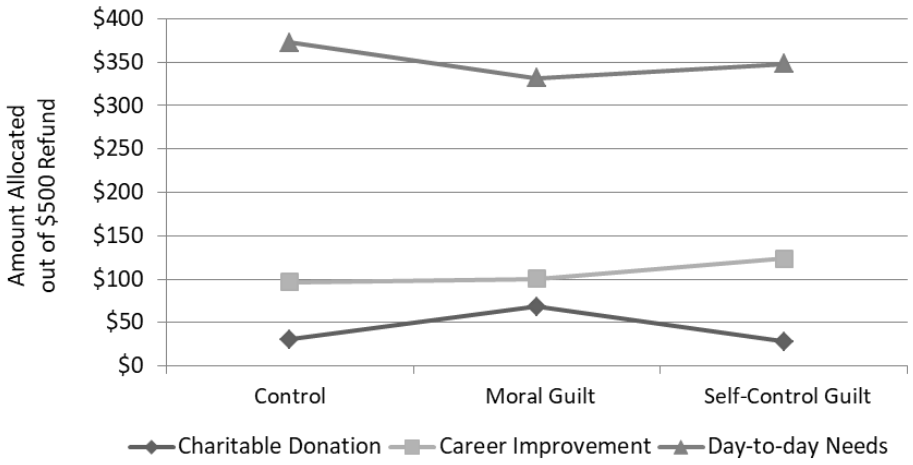
Refund allocation. As in study 1A, participants again allocated more money to day-to day needs (M = $351) than to career improvement (M = $107) or charitable donations (M = $42).

The effects of the guilt manipulation also replicated the results from study 1A (figure2). Consistent with H1a, tainting money with moral guilt increased the amount allocated to charitable donations (M = $68) compared to when guilt was absent ($31; $F(1, 581) = 19.43$, $p < .001$) or when associating money with self-control guilt ($28; $F(1, 581) = 21.02$, $p < .001$). Self-control guilt did not affect the donated amount compared to the control ($F < 1$).

In contrast, and consistent with H1b, associating money with self-control guilt increased the amount allocated to improving career prospects (M = $124) compared to when guilt was absent (M = $97; $F(1, 581) = 5.54$, $p = .019$) or when money was tainted with moral guilt (M = $100; $F(1, 581) = 4.10$, $p = .043$). Moral guilt did not affect the amount allocated to career improvement compared to the control ($F < 1$).

Other spending decisions. Consistent with our assumption that consumers strive to symbolically cleanse the money, tainting money with moral guilt exclusively increased self-sacrificial, pro-social spending (i.e., charitable donations). It did not affect paying off debts or spending on close others (who can easily return the favor) and it actually decreased allocation to savings (i.e., virtuous spending on the self). These results are summarized in table 1 and the detailed analyses are reported in the web appendix.

FIGURE 2: AMOUNT ALLOCATED TO SPENDING CATEGORIES DEPENDING ON THE MORAL NATURE OF GUILT (STUDY 1B)



Moderating role of moral identity. If, as we have proposed, the guilt manipulation influenced the refund allocation by changing the moral nature of the guilt, then the effect of the moral guilt manipulation on pro-social spending should be moderated by moral identity, whereas the effect of the self-control guilt manipulation on self-improvement spending should not (H2).

As moral identity was measured after the guilt manipulation (and the dependent measures) we had to first make sure that this measurement was not influenced by the manipulation. Unfortunately, the guilt manipulation did significantly change the internalization score ($F(2, 581) = 4.43$, $p = .012$). We, therefore, again reached out to all participants two weeks after the study, to collect a second measure of moral identity that should not be causally affected by the experimental treatment. Below, we report the results for the participants who completed both parts of the study ($n = 389$), using the delayed measure of moral identity. Note that none of the conclusions of the key analyses change when we instead use all participants ($n = 584$) and the first measure of moral identity (see the web appendix for detailed results of this analysis).

To test whether the effect of moral guilt on charitable donations was moderated by moral identity, we regressed the charitable donation amount on the moral guilt manipulation (0 =

control, 1 = moral guilt), moral identity (internalization score, α = .83; mean-centered), and their interaction term. The main effects of moral guilt (*b* = 36.39; *t*(259) = 2.87; *p* = .004) and moral identity (*b* = 10.94; *t* (259) = 2.00; *p* = .046) were both significant. More important, the interaction was also reliable (*b* = 42.27; *t*(258) = 3.22; *p* = .001; see figure 3 left side). Consistent with our predictions (H2), tainting money with moral guilt significantly increased charitable donations for participants who scored high on moral identity (at MID = Max[1]: $D_{control}$ = \$32, $D_{moral\ guilt}$ = \$99; *b* = 67.02; *t*(258) = 4.27; *p* < .001), but not for participants who scored low on moral identity (at MID = Mean–1SD: $D_{control}$ = \$28, $D_{moral\ guilt}$ = \$10; *t* < 1).

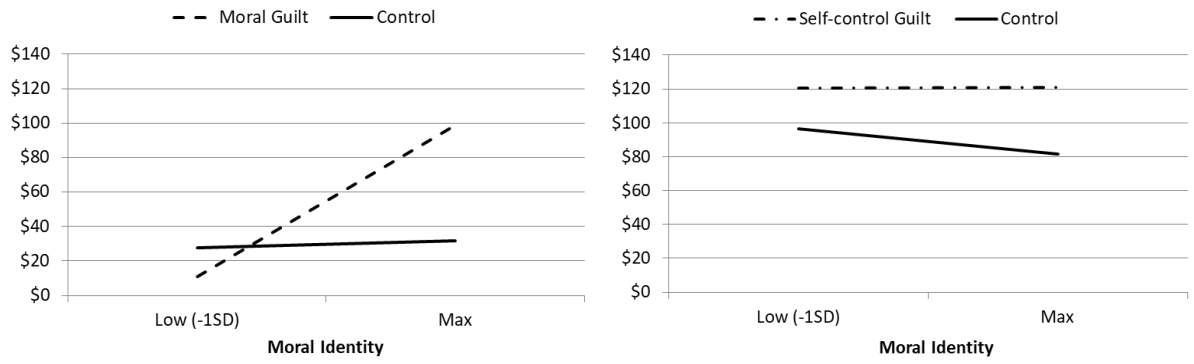
Next, we performed a similar regression analysis to test whether the effect of self-control guilt (0 = control, 1 = self-control guilt) on career improvement spending was also moderated by moral identity. As expected (H2), moral identity did not moderate this effect of self-control guilt (*F* < 1; see figure 3 right side; see the web appendix for detailed additional analyses and results).

In sum, scoring high on moral identity magnifies the effect of tainting money with moral guilt on charitable donations, but does not alter the effect of associating money with self-control guilt. These results support our assumption that the differential effects of moral versus self-control guilt result from differences in the moral nature of the guilt manipulation.

FIGURE 3: MODERATING ROLE OF MORAL IDENTITY (STUDY 1B)

Amount allocated to charitable donation Amount allocated to career improvement

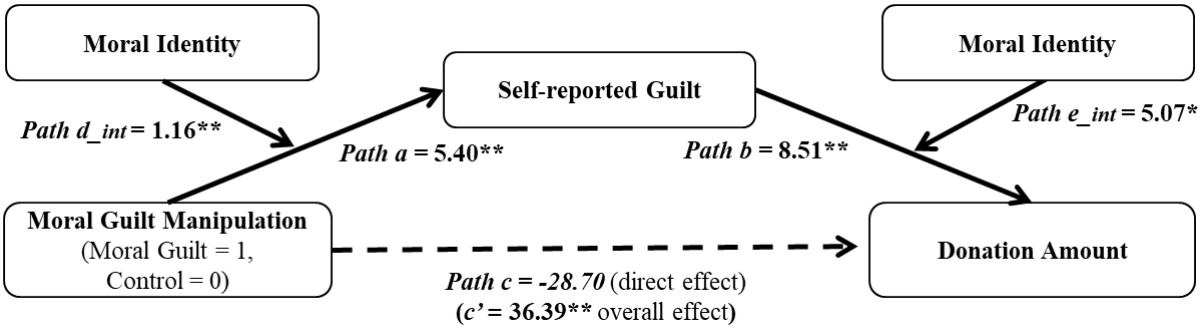
[1] Given that MID Mean + 1 SD was greater than the scale maximum, we tested at the scale endpoint (= 9) instead.



Mediated Moderation. There are two ways in which moral identity can moderate the effect of the moral guilt manipulation. Moral identity may either (1) increase the effectiveness of the moral guilt manipulation (i.e., increase the amount of guilt participants experienced in the moral guilt condition; path d in figure 4), or (2) increase the impact of the experienced guilt on charitable donations (path e in figure 4). A mediated moderation analysis of the effect of moral guilt on donations with self-reported guilt as mediator revealed that moral identity moderated the effect at both stages (see the web appendix for detailed results for each path in figure 4 as well as additional graphical representations). First, the impact of the moral guilt manipulation on self-reported guilt depended on moral identity ($b = 1.16$, $t(258) = 4.31$, $p < .001$, path d): tainting money with moral guilt was more effective in producing guilt for those high in moral identity (at MID = Max: $b = 6.25$, $t(258) = 19.39$, $p < .001$) than for those low in moral identity (at MID = Mean–1SD: $b = 3.92$, $t(258) = 9.12$, $p < .001$). Second, the effect of the experienced guilt on the donation amount also depended on moral identity ($b = 5.07$, $t(258) = 2.55$, $p = .011$, path e): whereas experienced guilt reliably increased donations for those high in moral identity (at MID = Max: $b = 11.60$, $t(258) = 5.39$, $p < .001$), it did not reliably influence donations for those low in moral identity (at MID = Mean–1SD: $b = 1.45$, $t < 1$). Finally, we tested the full mediated moderation model, incorporating the moderation at both stages (Hayes 2013, model 58; 5,000

samples). Whereas self-reported guilt mediated the effect of the moral guilt manipulation on the donation amount for participants with a strong moral identity (MID = Max: b = 93.73, Boot SE = 23.31, 95% CI: [52.63, 143.93]), it did not mediate the effect for participants with a weak moral identity (MID = Mean–1SD: b = 17.42, Boot SE = 13.06, 95% CI: [-6.85, 45.61]).

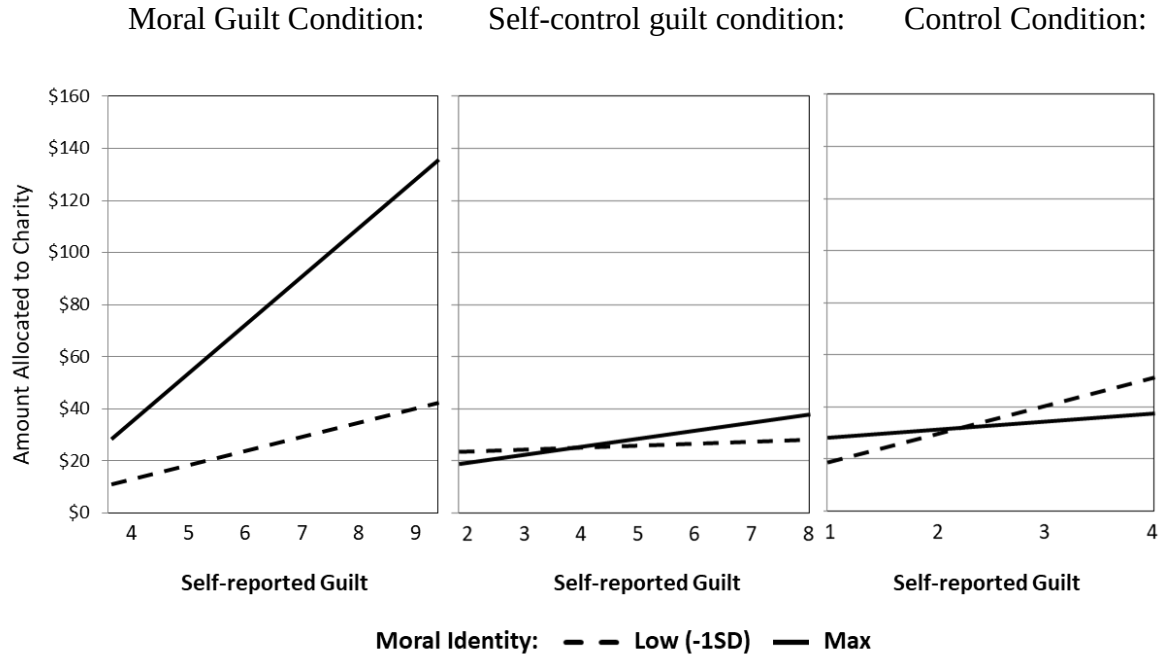
FIGURE 4: GUILT MEDIATES MODERATION BY MORAL IDENTITY (STUDY 1B)



Notes: * $p < .05$; ** $p < .01$; *int* = interaction.

As secondary analyses, we examined the effect of experienced guilt on donations (i.e., paths b and e) within each condition (see the web appendix for detailed results). Whereas moral identity increased the effect of guilt on donations in the moral guilt condition (b = 11.03, $t(126)$ = 2.12, p = .036), it did not affect the relationship between guilt and donations in the self-control guilt condition (b = .96, t < 1), and marginally weakened the relationship in the control condition (b = -3.35, $t(128)$ = -1.67, p = .097; figure 5). The results further support our assumption that the guilt resulting from lying is more moral in nature than the guilt elicited from a self-control failure.

FIGURE 5: MORAL IDENTITY MODERATES THE EFFECT OF GUILT ON DONATION AMOUNT (STUDY 1B)



Discussion and Follow-Up Studies

Study 1B replicated the results of the first study that tainting money with moral guilt increases pro-social spending of that money (H1a), whereas associating money with self-control guilt increases self-improvement spending (H1b). In addition, this study confirmed that these differential effects were due to differences in the moral nature of the guilt. Although moral identity did not influence the effect of self-control guilt on self-improvement spending, it did magnify the effect of moral guilt on pro-social spending (H2). Specifically, participants with a stronger moral identity not only reported feeling greater amount of guilt after receiving morally tainted money, but also showed a greater effect of this guilt on subsequent charitable donations. These results helped us rule in our assertion that the different consequences of associating money with moral versus self-control guilt result from differences in the moral nature of guilt, and not just by the direct influence of our guilt manipulation. That is, the differences associated with the

manipulation--e.g., differences in the type of failure (interpersonal vs. personal), type of victim (self vs. other), whether the money was legitimately earned, or intensity of the guilt–influenced the spending decisions by changing the moral nature of guilt. Note also that guilt intensity cannot account for why moral guilt did not increase self-improvement spending whereas self-control guilt did—even though the intensity of moral guilt was greater than that of self-control guilt. Furthermore, it can also not explain why the effect of self-control guilt on pro-social spending was not only weaker than the effect of moral guilt, but also went in the opposite direction.

This study also provided evidence that the effect of tainting money with moral guilt was limited to increasing pro-social spending on distant others and did not extend to spending on close others, savings, or debt repayments (see table 1). Those specific results were also replicated in a follow-up study (study 1C, 99 MTurk participants; see the web appendix for details) which used the same gym refund scenario to manipulate whether money was tainted by moral guilt or untainted. These results, also presented in table 1, confirmed that the effect of tainting money with moral guilt is limited to pro-social spending and does not extend to useful or virtuous spending for the self—unlike money that is associated with general negative feelings (Levav and McGraw 2009). Study 1C also addressed a specific alternative account: the money received due to a moral violation may have been less expected than the money received legitimately and thus may have been perceived as a windfall. Given that windfalls are more likely to be spent on discretionary purchases (such as frivolous or hedonic products; O'Curry 1999), and to the extent that charitable spending is perceived as discretionary, it is possible that the windfall nature of the tainted money has encouraged its charitable spending. If this is the case, it should also increase spending on other, more typical discretionary purchases. However, participants in the moral guilt condition were not more likely to spend the tainted money on luxuries and were reliably less

likely to spend it on hedonic products or vices (see table 1); indicating that the spending decisions for morally tainted money were not primarily driven by its unexpected nature.

A second follow-up study (study 1D; 117 MTurk participants) was conducted to test another alternative account: the moral (vs. personal) failure may have increased participants' empathic concern for others, which may have motivated them to donate more. We tested this using the same scenario, recruitment process, and guilt conditions as in studies 1A and 1B. After reading the gym refund scenario, participants were asked to indicate the extent to which they felt sympathetic, compassionate, soft-hearted, or tender towards the beneficiaries of the charity they were considering donating to (α = .93; 1 = not at all, 9 = very much). Interestingly, the empathy reported by participants in the moral guilt condition was *lower* (M = 7.00) than that in the control condition (M = 7.80; $F(1, 93) = 4.02$, p = .048) and did not differ from the empathy level in the self-control guilt condition (7.51; $F(1, 93) = 1.82$, NS), indicating that increased empathy cannot account for the donation behavior in the moral guilt condition.

.

STUDY 2: SELF-REPORTED INSTANCES OF MORALLY TAINTED MONEY

Study 2 aimed to replicate the effect of tainting money with moral guilt, using participants' actual experiences for enhanced external validity. We adopted the autobiographical recall method, one of the most commonly used guilt induction methods in past research, to examine people's willingness to pro-socially spend tainted money they had received in the past.

Method

Two hundred and sixty-eight participants were recruited through Mechanical Turk[2]. Participants were assigned to either the moral guilt condition or the control condition. In the moral guilt condition, participants were asked to recall and write about a recent occasion in which they received or earned money that made them feel guilty. The instructions provided several examples (i.e., stealing money from their parents or siblings, receiving money that is more than what they deserve, or earning money in a way that does not quite seem ethical) and emphasized that participants should describe their own, real experience in which they felt guilty about receiving or earning money, not about spending money. In the control condition, participants wrote about a recent occasion in which they received or earned money.

Next, they participated in an ostensibly unrelated study in which they were asked to indicate their willingness to volunteer for different non-profit organizations. Consistent with H3a, having written about receiving money tainted with moral guilt did not increase participants' willingness to volunteer time. However, since this was merely a priming manipulation, we considered this only a weak initial test of the hypothesis and therefore decided to move the description of the full procedure and results of this section to the web appendix.

All participants were then asked to think back to the occasion they wrote about earlier and specify the amount they had received. They were asked to assume that they still had that money and now had an opportunity to donate some of it to a charity. They then indicated their willingness to donate some of it by moving a slider on a scale anchored by "0% (keep all to myself)" and "100% (donate all to a charity)" and by specifying the amount they were willing to donate. Next, as in study 1B, participants were asked to recall the story they wrote earlier and rate the extent to which they felt six emotions when they thought about the money and the extent

[2] Twelve participants failed the IMC, but given that they disproportionately belonged to the moral guilt condition (11 out of 12), excluding them would have made the conditions non-comparable, so all analyses were conducted on all participants (Meyvis & Van Osselaer 2018). Additional details can be found in the web appendix.

to which getting the money made them feel immoral, unethical, or dishonest. Finally, they completed an Instructional Manipulation Check (see the web appendix for details), spent some time on filler questions (to wear out the effect of the moral guilt manipulation), and then responded to the ten-item moral identity scale (internalization: $\alpha = .74$; Aquino and Reed 2002), which was not affected by the moral guilt manipulation ($F < 1$).

Results and Discussion

Self-reported guilt and immoral feelings toward money. As intended, participants in the moral guilt condition felt guiltier about the money ($M = 5.23$) than those in the control condition ($M = 1.89$; F (1, 266) = 114.82; $p < .001$), and also felt more immoral about the money (immorality index, $\alpha = .97$, $M = 4.00$) than those in the control condition ($M = 1.33$; F (1, 266) = 104.92; $p < .001$). The two conditions did not differ in the amount of money recalled (F (1, 267) = 2.21, NS). See the web appendix for an overview of the types of situations participants recalled.

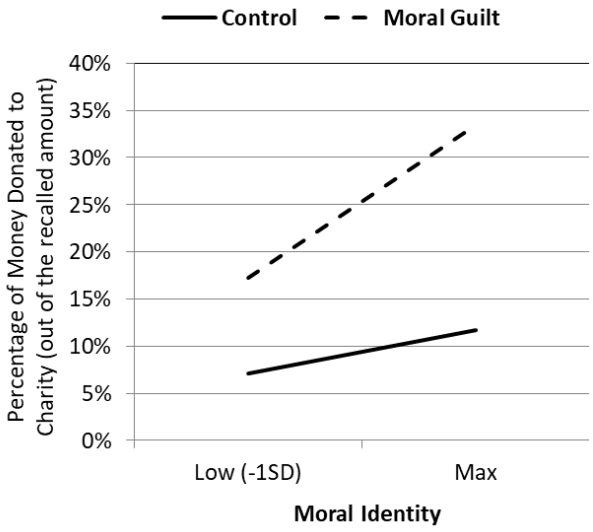
Willingness to donate. Consistent with H1a, participants were willing to donate a greater proportion of the money when it was tainted with moral guilt, as revealed both by their responses on the slider scale ($P_{Guilt} = 28\%$, $P_{Control} = 12\%$; F (1, 266) = 20.81, $p < .001$) and by the actual dollar amount they specified (recalculated as a proportion of the total amount: $P_{Guilt} = 26\%$, $P_{Control} = 10\%$; F (1, 259) = 23.89; $p < .001$)[3].

Moderating role of moral identity. Next, we tested whether, as in study 1B, moral identity moderated the effect of the moral guilt manipulation on donation intentions (H2). A regression analysis on the proportion of the money donated (measured by the actual amount specified out of

[3] Six participants who specified zero dollars as the total amount received and one participant who donated (667%) more than the total amount were removed from this second analysis, leaving a total of 261 participants.

the total amount) revealed main effects of both the moral guilt manipulation (b = 16.56; $t(258)$ = 4.84, $p < .001$) and moral identity (mean-centered; b = 4.90; $t(258)$ = 2.91, p = .004), which was qualified by a marginally significant interaction (b = 6.18; $t(257)$ = 1.80, p = .074). Using the slider scale response provided a significant interaction (b = 8.79; $t(264)$ = 2.64, p = .009). Consistent with H2, recalling money tainted with moral guilt (rather than untainted money) increased donation intentions more for participants with a stronger moral identity (figure 6).

FIGURE 6: MODERATING ROLE OF MORAL IDENTITY[4] (STUDY 2)

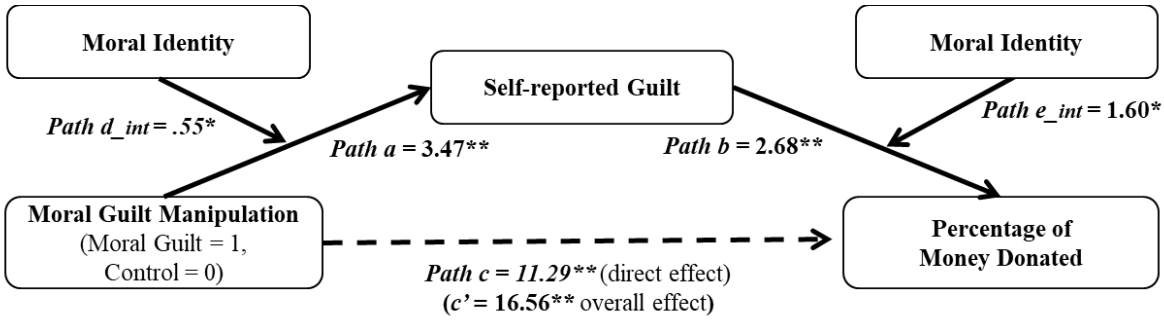


Mediated Moderation. As in Study 1B, we examined whether moral identity increased the effectiveness of the moral guilt manipulation (path d in figure 7), or increased the impact of the experienced guilt on charitable donations (path e in figure 7). A mediated moderation analysis (Hayes 2013, model 58, 5000 samples) revealed that moral identity increased both of these effects (see the web appendix for detailed analyses and results). Participants who scored

[4] Given that MID Mean + 1 SD was greater than the scale maximum, we conducted spotlight analyses (reported in the web appendix) at the scale endpoint (= 9) instead.

higher on moral identity showed a greater increase in feelings of guilt when the money was morally tainted (b = .55; $t(257)$ = 1.98, p = .048; path d) and showed a greater increase in donations with increasing levels of guilt (b = 1.60; $t(257)$ = 2.52; p = .012; path e).

FIGURE 7: GUILT MEDIATES MODERATION BY MORAL IDENTITY (STUDY 2)



Notes: $^{*}p < .05$; $^{**}p < .01$; *int* = interaction.

Discussion. Study 2 replicated the results from our earlier studies with participants' self-reported instances in which they received money that they felt morally guilty about. As in studies 1A and 1B, participants with tainted money were more willing to donate some of it than those with untainted money (H1a). Moreover, as in study 1B, this effect was magnified for those who scored higher on moral identity, providing further support for the moral nature of this effect (H2).

Whereas this study increased the ecological validity of the moral guilt manipulation by relying on participants' own experiences, the next study will aim to provide a cleaner test of the effect of morally tainting money by actually inducing moral guilt in the lab and studying the effect on real, consequential donation decisions. In addition, it will also provide a test of whether people are focused on cleansing the money rather than repairing their moral self-view.

STUDY 3A: MORAL GUILT ASSOCIATED WITH MONEY VS. THE SITUATION

We have proposed that when consumers receive tainted money, they will prioritize cleansing that money over engaging in actions that may be more effective at repairing their moral self-view. To test whether associating guilt with money indeed limits its impact to the spending of that money, we will compare consumers' decisions when guilt is associated with money to their decisions when guilt is unrelated to the money (as well as to their decisions in the absence of guilt). Specifically, we'll examine how the association with money changes whether the guilt elicits pro-social spending of the money versus pro-social volunteering of time. Consistent with H3a and H3b, we expect that receiving morally tainted money will increase pro-social spending of money rather than time. Given that volunteering time would actually be a more effective path to moral affirmation (Reed et al. 2016), this result would suggest that those consumers prioritize the cleansing of the money over the restoring of their moral standing.

Study 3A also aimed to improve on an inherent limitation of the guilt induction used in study 2. Although autobiographical recall is the most widely accepted method to induce guilt, it implies that the spending decision is hypothetical. In study 3A, we wanted to examine actual spending of tainted money—which required us to develop a novel method to make people feel guilty about money received in the context of the study. Specifically, some participants received a payment for qualifying for a study because they (allegedly) exhibited strong prejudice against people with a physical disability. Similar bogus feedback about prejudice has been used in prior research to induce guilt (e.g., Amodio, Devine, and Harmon-Jones, 2007) and highlights a clear moral violation given that being fair and unprejudiced is commonly seen as an important characteristic of a moral person (Aquino and Reed 2002; Shweder, et al.1997).

Method

Students in two Korean universities (n = 447) participated in the study in exchange for 5,000 South Korean Won (₩), equivalent to approximately $5. Since the data collection site did not interact with the manipulations, the data were pooled across universities in all analyses. Participants were randomly assigned to one of six conditions in a 3 (guilt: control, guilty-about-money, guilty-about-test) x 2 (pro-social behavior: monetary donation, time volunteering) design.

All participants completed an Implicit Attitude Test (IAT) measuring their attitude toward physically disabled people. Moral guilt was induced by providing negative bogus feedback regarding the IAT result. In the control condition, participants completed the IAT and received relatively neutral feedback. They were either told that they had "little to no automatic preference between abled and disabled people" or "a slight automatic preference for abled people."[5] In addition, these participants were told they had been entered in a ₩50,000 lottery (approx. $50) as a reward for their participation. In contrast, participants in the guilty-about-money condition were told that those who received an extreme test result (i.e., having a strong preference toward either the disabled or the abled) would be entered in a ₩50,000 lottery because they qualified for a follow-up study. After taking the IAT, they were all told that they held a strong implicit preference for the abled (i.e., a strong prejudice against the disabled), and were thus all entered into the lottery. Finally, in the guilty-about-test condition, participants received the same negative feedback, but were entered into the lottery as a reward for their participation (as in the control condition) rather than based on their negative test result. Thus, we

[5] According to actual IAT data collected over the ten years prior to when study 3A was conducted, over 85% of people had some degree of preference for the abled over the disabled (IAT Corp). Because we were concerned that purely neutral feedback might trigger skepticism among participants, we were unsure what the right control condition was. We therefore included both types of feedback. Since there was no significant difference between the two controls on any of the measures, we collapsed the two control conditions in the analyses.

expected that the last two groups would both feel guilty about the test result, but only those who were entered in the lottery based on their prejudice would feel guilty about the lottery money.

After receiving the test result, all participants moved to an ostensibly unrelated study which measured the key dependent variables—either monetary donation or time volunteering. All participants were given a promotion flyer that introduced a charity named Hindsight. This is a real charity that operates on university campuses and encourages students to tutor or support people deprived of education opportunities. We used this charity because students were already familiar with spending time on private tutoring as it was a popular way of earning extra money. After looking through the flyer, which was used with the charity's permission, participants in the monetary donation condition were asked whether they wanted to donate some of the lottery winnings to Hindsight if they won the lottery. They specified the exact amount (out of ₩50,000) that they chose to pre-commit, knowing that this amount would be automatically deducted from their winnings and sent to the charity. Participants in the time condition instead were asked whether they wanted to volunteer some of their time to Hindsight. They first reported how much free time they had on campus in an average week (in hours) and then indicated (1) how many of those weekly hours they chose to pre-commit to the volunteer work and (2) the total number of weeks they would do so. Finally, they were thanked and fully debriefed. A winner for the lottery was announced on the final day of the study, and ₩50,000 was wired to the winner.

Results

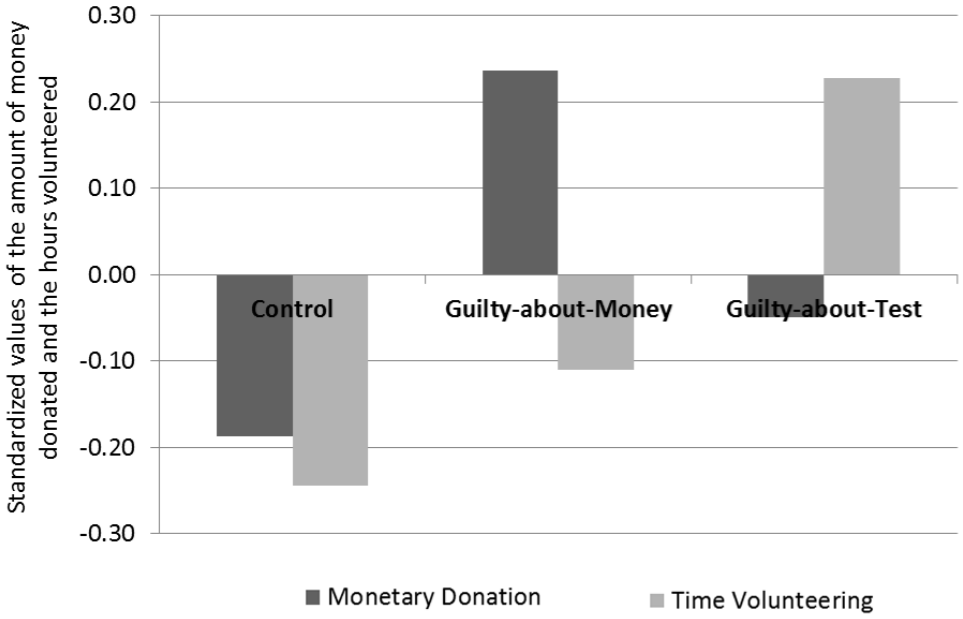
Because monetary donations and time volunteering were measured on different scales, we first analyzed each dependent measure separately. Participants who felt guilty about money

pre-committed more money (M = ₩18,931) than both those who did not feel guilty (M = ₩12,151; $F(1, 259) = 7.98$, $p = .005$) and those who felt guilty due to reasons unrelated to the money (i.e., the guilty-about-test condition; M = ₩14,359; $F(1, 259) = 3.69$, $p = .055$). Those last two groups did not differ from each other ($F < 1$).

Time volunteering showed a different pattern. Total hours pre-committed was computed by multiplying (1) the weekly number of hours pre-committed by (2) the total number of weeks pre-committed. Participants who felt guilty about the money did not pre-commit more time (M = 12.6 hours) than those in the control condition (M = 10.2 hours; $F < 1$) and marginally less time than those who felt guilty about the test but not about the money (M = 18.8 hours; $F(1, 182) = 3.52$, $p = .062$). Moreover, those participants who felt guilty about the test pre-committed significantly more time than those in the control condition ($F(1, 182) = 6.83$, $p = .010$), consistent with the prior finding that volunteering time is a particularly effective way to restore one's moral self-view (Reed et al. 2016).

Finally, we standardized the two dependent measures to directly test whether feeling guilty about the money increased monetary donations more than it increased time volunteering (figure 8). We first compared the guilty-about-money condition to the control condition. A marginal interaction with the type of pro-social behavior ($F(1, 441) = 3.09$, $p = .080$) indicated that, consistent with H3a, feeling guilty about the money (vs. not feeling guilty) increased donations of that money more than time. Next, we compared those who felt guilty about the money to those who felt guilty about the test. A significant interaction with the type of pro-social behavior ($F(1, 441) = 7.12$, $p = .008$) indicated that, consistent with H3b, feeling guilty about the money (vs. feeling guilty about the test result) increased donations of that money more than time.

FIGURE 8: GUILT ASSOCIATED WITH MONEY VERSUS UNRELATED TO MONEY (STUDY 3A)



Discussion and Follow-Up Studies

Using lab induced guilt and pro-social decisions with real consequences, study 3A provided evidence for our proposition that people who receive tainted money focus primarily on cleansing that money. Compared to both participants who did not experience guilt and those who only felt guilty about the test result, those who felt guilty about the money were more likely to donate money but not more likely to volunteer time (and even marginally less likely to donate time than those experiencing guilt unrelated to money). It should be noted that donating to the charity did not aid the people whom participants (allegedly) were prejudiced against (i.e., the physically disabled), thus indicating that, in this situation, the guilt was bound to the money rather than to specific victims (e.g., de Hooge et al. 2011).

We conducted a follow-up study (study 3B, 90 students from a Korean university) to test a possible alternative account: participants may want to spend the tainted money pro-socially because they feel they don't deserve the money rather than because they feel guilty about receiving it. This study also included guilt manipulation checks to validate our new guilt induction method. Participants were randomly assigned to one of three guilt conditions: control (C), guilty-about-money (GM), or guilty-about-test (GT). After receiving the bogus feedback on the IAT, participants responded to three questions that measured the extent to which they felt deserving of the lottery winning (see the web appendix for specific items). Next, they indicated how guilty they felt about (1) the possible lottery winning and (2) their test result. The questions were displayed one at a time and measured on a 9-point scale (1 = not at all, 9 = very much).

The manipulation checks confirmed the validity of the guilt manipulation. Specifically, with regard to the *test result*, participants in the two guilt conditions felt more guilty than those in the control ($M_{GM} = 5.86$, $M_{GT} = 6.47$, $M_{C} = 2.90$; both $F(1, 87)$'s > 30, p's < .001), but did not differ from each other ($F(1, 87) = 1.27$, NS). With regard to the *money*, participants in the guilty-about-money condition felt more guilty than those in the other two conditions ($M_{GM} = 4.10$, $M_{GT} = 2.23$, $M_{C} = 2.23$; both F (1, 87) > 13, $p < .001$), which did not differ from each other ($F < 1$). In addition, although participants in the guilty-about-money condition felt guiltier about the money, they did not feel less deserving of it than those in the other two conditions ($\alpha = .85$; $M_{GM} = 5.76$, $M_{GT} = 5.32$, $M_{C} = 5.82$; both F's < 1), supporting the view that the pro-social effects of tainted money are driven by participants' feelings of guilt rather than perceived un-deservingness.

Finally, study 3A was conceptually replicated in a second follow-up study (study 3C, 504 MTurk participants; full methodology and results in the web appendix). This study used the same 3 (guilt: control, guilty-about-money, unrelated-guilt) x 2 (pro-social behavior: money, time)

between-subjects design, but used a scenario for the guilt manipulation. All participants imagined winning a $1,000 cash prize in a company-wide competition. In the guilty-about-money condition, they obtained the prize by stealing someone's idea, whereas in the control and unrelated-guilt conditions, they earned it through their own hard work. Furthermore, in the unrelated-guilt condition, participants cheated in another domain—which earned them a nomination as outstanding employee of the year. After reading the scenario, participants either indicated how much of the $1,000 they would be willing to donate (money conditions) or how many days they would be willing to volunteer (time conditions) for a charity. As hypothesized, receiving morally tainted money led to a greater increase in donations of that money than in volunteering of time, both compared to those who didn't experience guilt ($F(1, 481) = 10.01$, $p = .002$; H3a) and compared to those who experienced guilt unrelated to the money ($F(1, 481) = 12.36$, $p < .001$; H3b). Compared to the control condition, feeling guilty about money increased donations ($F(1, 241) = 39.08$, $p < .001$), whereas feeling guilty for other reasons increased time volunteering ($F(1, 240) = 5.71$, $p = .018$). The results again suggest that participants who receive tainted money prioritize cleansing that money over restoring their moral self-view.

STUDY 4A: TAINTED VERSUS UNTAINTED MONEY

If consumers who feel guilty about money are preoccupied with cleansing that money, then they should not only prefer spending money over volunteering time, but they should also prefer spending tainted money over spending untainted money. We test this in study 4.

Method

Students from a North American university (n = 146) participated in the study as part of a course requirement. The study was a 2 (guilt: moral guilt vs. control) x 2 (money: refund vs. gift) between-subjects design. Moral guilt was manipulated using the gym refund scenario from study 1A, in which those in the control condition received a legitimate refund of $500, whereas those in the moral guilt condition lied to get the refund. In addition, all participants were told that they had also received a $500 cash gift from their uncle that same day. Next, participants in the gift condition were told that they spent the *refund* to buy textbooks, whereas participants in the refund condition were told that they spent the *cash gift* instead. Thus, all participants had spent $500 on textbooks and had $500 left in their possession. However, only the participants in the moral guilt/refund condition were left with *tainted* money obtained through lying while all other participants were left with untainted money. After reading the scenario, participants answered the usual emotion and morality manipulation check questions about the leftover money and then indicated their willingness to spend some of the money on charitable donations, on buying gifts for others, or on virtuous or utilitarian categories for themselves, or to pay off debt (1 = not at all, 9 = very much; see table 1 for the list of spending categories similar to those in study 1C). The spending measures were presented in a randomized order. Finally, we also asked participants to indicate the percentage of the money they would wish to allocate to themselves versus a charity.

Results

Self-reported guilt and immoral feelings toward money. Compared to participants in the other conditions, those who were left with the refund and had lied to obtain it (i.e., those in the

moral guilt/refund condition) felt more guilty about the money ($M_{\text{Guilt/Refund}} = 6.72$, $M_{\text{Control/Refund}} = 2.12$, $M_{\text{Control/Gift}} = 3.21$, $M_{\text{Guilt/Gift}} = 2.81$; all contrasts: $F(1, 142) > 42$, $p < .001$) and felt more immoral, dishonest, and unethical toward the money ($\alpha = .97$; $M_{\text{Guilt/Refund}} = 6.77$, $M_{\text{Control/Refund}} = 1.66$, $M_{\text{Control/Gift}} = 2.75$, $M_{\text{Guilt/Gift}} = 2.48$; all contrasts: $F(1, 142) > 79$, $p < .001$).

Spending decisions. Consistent with H3a, having received tainted money increased participants' willingness to donate the tainted money more than it increased their willingness to donate equivalent, untainted money (interaction: $F(1, 142) = 4.43$, $p = .037$). Having lied to obtain the refund increased pro-social spending of that refund ($M_{\text{Guilt/Refund}} = 4.46$, $M_{\text{Control/Refund}} = 2.87$; $F(1, 142) = 8.99$, $p < .001$), but it did not increase pro-social spending of the uncle's gift ($M_{\text{Guilt/Gift}} = 3.41$, $M_{\text{Control/Gift}} = 3.37$; $F < 1$).

A similar pattern was observed for participants' allocation of the money between a charity and themselves, although the interaction of moral guilt and money type was only marginally significant ($F(1, 142) = 3.22$, $p = .075$; H3a). Having lied to obtain the refund increased the proportion of that refund allocated to charity ($P_{\text{Guilt/Refund}} = 27\%$, $P_{\text{Control/Refund}} = 15\%$; $F(1, 142) = 5.76$, $p = .018$), but it did not increase the proportion of the gift allocated to charity ($P_{\text{Guilt/Gift}} = 17\%$, $P_{\text{Control/Gift}} = 17\%$; $F < 1$).

No interaction effect was found for any of the other dependent variables (i.e., the measures of spending on close others, useful or virtuous spending on the self, and paying off debt; table 1). Thus, feeling guilty about money motivated people to cleanse the tainted money specifically through pro-social spending of that money on distant others.

Discussion and Follow-Up Studies

Feeling guilty about money increased pro-social spending of the tainted money, more than of equivalent, untainted money, thus providing further evidence that people are motivated to specifically cleanse the money they feel guilty about.

We conducted an additional study (study 4B; 620 MTurk participants; see the web appendix for details) to test whether participants limited their pro-social spending to tainted money even when they had both tainted money and untainted money. Indeed, obtaining money immorally increased donations of that money, more than it increased donations of untainted money ($F(1, 616) = 5.43$, $p = .020$, H3a), even when participants had both sums of money.

We conducted a second follow-up study (study 4C; 312 MTurk participants; see the web appendix for details) with two objectives. First, we sought to use a recall-based guilt manipulation (similar to study 2) to replicate our prior findings that the experience of moral guilt leads to greater pro-social spending when the guilt is specifically associated with the money being spent. To this end, we created four conditions: (1) a *control* condition in which participants simply recalled a time they earned or received money, (2) a *guilty-about-money* condition in which they recalled earning or receiving money they felt guilty about, (3) a *guilty-about-other-money* condition in which they also recalled earning or receiving money they felt guilty about but then were asked to recall again about earning or receiving other money for the actual spending decisions, and (4) a *guilty-about-person* condition in which they first recalled a situation in which they felt guilty towards someone close to them, and then were asked to recall again about a situation in which they earned or received money.

Second, we wanted to address a possible alternative account for guilty participants' preference to spend the tainted money on charities rather than on close others or the self. We have proposed that charitable donations are seen as a more effective way to cleanse the money as

they are unambiguously self-sacrificing (whereas a close other might return the favor). However, it is also possible that guilty participants preferred the charitable donations because the charity recipients better *matched* the victims of their transgression (e.g., gym owners or disabled people) in that they were both *distant* others. To test between these two accounts (moral signaling through self-sacrificing versus victim matching), we asked participants in the three guilt conditions to make sure that the situation they recalled involved a *close other*. Furthermore, we asked all participants how they would allocate the amount they had received in the recalled episode among three recipients: themselves, a charitable organization of their choice, and a "person A" which they were asked to specify. This person A had to be a close other who was different from the person in the episode they recalled.

Compared to participants in each of the other three conditions, those who were spending money tainted by moral guilt allocated a greater percentage to *charitable donations* ($P_{\text{Guilty About Money}}$ = 17% versus P_{Control} = 7%, $P_{\text{Guilty About Other Money}}$ = 7%, and $P_{\text{Guilty About Person}}$ = 10%; all contrasts: F (1, 299) > 5.16, p < .024), allocated less money to *themselves* ($P_{\text{Guilty About Money}}$ = 58% versus P_{Control} = 73%, $P_{\text{Guilty-other-money}}$ = 67%, $P_{\text{Guilty-person}}$ = 71%; all contrasts: F(1, 299) > 3.72, p < .055)), and did not differ in money allocated to the *close other* (i.e., person A) (P = 26% versus P_{Control} = 20%, $P_{\text{Guilty-other-money}}$ = 26%, $P_{\text{Guilty-person}}$ = 19%; all contrasts: F(1, 299) < 2.45, p > .119). Thus, this study replicated the prior finding that the pro-social spending is limited to the tainted money (and doesn't extend to other money) using recall-based guilt manipulations. Moreover, the results confirm that guilty consumers seek to spend the money in a way that maximizes the moral, self-sacrificing signal rather than the fit between the victim and the recipient. Indeed, tainting money with moral guilt increased spending on a charity, but not spending on a close other, even though the initial transgression also involved a close other.

STUDY 5: FEELING GUILTY ABOUT FINANCIAL PRIVILEGE

To test the generalizability of our findings, we next examined the impact of moral guilt in the absence of an explicit transgression. Specifically, we activated guilt about financial privilege by exposing participants to less fortunate others. Positive inequity is perceived in response to a violation of fairness (a key foundation of human morality; Haidt 2003) and is known to trigger feelings of guilt (e.g., Austin and Walster 1975; Baumeister et al. 1994; Gino and Pierce 2009b). By using this new guilt induction method, we aim to test whether feeling moral guilt about money extends beyond contexts in which people actively lie or cheat.

Method

One hundred and thirteen participants were recruited through MTurk. Twenty-seven participants who did not agree to participate in a lottery event and two who failed the IMC were excluded from all analyses (see the web appendix for details). Participants were randomly assigned to one of three guilt conditions: control, guilty-about-money, or guilty-about-people.

The procedure consisted of three ostensibly unrelated studies. The first study was a survey allegedly conducted by a start-up organization. In the two guilt conditions, the survey was said to be conducted by Save the Starved, a charity designing a new poverty reduction program. Before responding to the survey, only participants in the guilty-about-money condition were told that Save the Starved would randomly select one participant and wire $50 as a thank you for their participation. The survey presented 20 photos of people in poverty, one at a time. Each

photo was presented with a related statistical fact (e.g., “every 3.6 seconds someone dies of hunger”). Participants indicated the extent to which they were aware of each fact (1 = not aware at all, 9 = fully aware) and the extent to which they thought they were better off than people in the photo (1 = definitely worse off, 9 = definitely better off). In contrast, in the control condition, the survey was allegedly conducted by Travel the World, a company designing a new travel program. Before responding to the survey, participants were told that Travel the World would randomly select one participant and wire $50 as a thank you for their participation. Participants saw 20 travel destination photos, each on a screen with a related statistical fact (e.g., “China was the third most popular travel destination in 2012, after France and the US”). Participants indicated their awareness of each fact (1 = not aware at all, 9 = fully aware) and the extent to which that fact reflected their preference for travel destinations (1 = not at all, 9 = very much).

Next, all participants moved to the second study that asked them to write about their typical Tuesday. Before this task, only participants in the guilty-about-people condition were told that a business school conducting the survey would randomly select one participant and wire $50 as a thank you for their participation. Thus, while all participants were entered into a lottery for $50, only for participants in the guilty-about-money condition was the money associated with the poverty survey (and, we assume, with the moral guilt activated by the survey).

All participants then moved to the third study. The study introduced a real non-profit organization called Newlife Foundation for Disable Children. All participants were then invited to donate some of their lottery winnings to the organization. They were told that, if they won the lottery, the amount they pre-committed would be automatically deducted from the $50 and donated to the organization. Finally, participants were fully debriefed. The lottery winner was announced at the end of the experiment day and the prize money was wired to the winner.

Results and Discussion

Consistent with earlier results, participants in the guilty-about-money condition pre-committed more money (M = \$14) than those in the control condition (M = \$7; $F(1, 81) = 3.85$, $p = .053$) or in the guilty-about-people condition (M = \$5; $F(1, 81) = 5.82$, $p = .018$). These last two conditions did not differ from each other ($F < 1$). A post-test (n = 113; MTurk) was conducted to validate our new guilt induction method. Participants in the guilty-about-money condition (M = 4.33) felt significantly more guilty about the \$50 than those in the control condition (M = 1.17; $F(1, 110) = 24.79$, $p < .001$) and those in the guilty-about-people condition (M = 2.34; $F(1, 110) = 13.07$, $p < .001$). The last two conditions did not differ from each other ($F(1, 110) = 1.51$; NS). These results demonstrate that, even when people did not commit any explicit transgression, they can still feel guilty about money, resulting in increased pro-social spending of the money.

STUDY 6: CLEANSING TAINTED MONEY

Across our studies, we consistently find that people who feel guilty about money strive to cleanse the tainted money by spending it pro-socially. In this final study, we test whether this pro-social spending is indeed effective in reducing the guilt attached to the money. We do so by measuring feelings towards the money either before or after the donation decision (Levav and McGraw 2009; Ramanathan and Williams 2007). If donating some of the tainted money helps cleanse the money, we should observe a reduction in those feelings after the donation decision.

Method

One hundred and seventy-eight undergraduate students from a North American university participated in return for course credit. They were randomly assigned to one of four cells in a 2 (guilt: moral guilt, control) x 2 (time of measurement: before vs. after donation) between-subjects design. As in studies 3A and 3B, moral guilt was induced using bogus IAT feedback and all participants were entered into a $50 lottery, either because their prejudice against the disabled qualified them for the lottery (moral guilt condition) or as a reward for their participation in the study (control condition). After receiving the IAT feedback, participants reported (1) how they would feel about their winnings if they won the lottery (i.e., the emotion measures same as in study 1B) and (2) whether to pre-commit some of the winnings to a charity of their choice. The order of these questions was counterbalanced. Note that those who reported their feelings after making the donation decision indicated how they would feel about the remaining money (i.e., the amount not assigned to the charity). Finally, participants were thanked and fully debriefed. A lottery winner was announced on the final day of the study, and the $50 was sent to the winner.

Results and Discussion

Analysis of the amount pre-committed to a charity only revealed a main effect of the guilt manipulation ($F(1, 174) = 8.96$, $p = .003$). Replicating our previous results, participants who felt guilty about the money pre-committed a greater portion of the $50 ($M$ = $22) than those who did not feel guilty (M = $12). Next, we examined the measures of immorality ($\alpha = .95$) and guilt,

both of which showed a reliable interaction of the guilt manipulation and the time of measurement (immorality: $F(1, 174) = 14.56$, $p < .001$; guilt: $F(1, 174) = 6.31$, $p = .013$). While immoral feelings toward the money did not decrease after the donation decision among control participants (they even marginally increased from 1.77 to 2.64; $F(1, 174) = 2.86$, $p = .093$), they did reliably decrease among participants in the moral guilt condition (from 5.97 to 4.20; $F(1, 174) = 14.52$, $p < .001$). Similarly, the level of guilt associated with money did not change after the donation decision among control participants (from 1.59 to 2.20; $F(1, 174) = 1.45$, $p > .10$), but did drop significantly in the moral guilt condition (from 4.92 to 3.81; $F(1, 174) = 5.81$, $p = .017$). These results demonstrate that committing to spend some of the money pro-socially is effective at reducing its moral taint. Even though participants pre-committed only a part of the money to a charity (less than half on average), this pre-commitment reliably reduced the moral guilt associated with the remaining money.

GENERAL DISCUSSION

Following the 2008 financial crisis, some bankers have publicly admitted feeling guilty about the way they earn money (Smith 2012). As witnessed in participants' autobiographical recalls (studies 2 and 4C) and study 5 that induced guilt by reminding participants of their financial privilege, feelings of guilt toward money are in no way restricted to bankers or to explicit moral transgressions. Any professional can feel guilty for over-charging, consumers may feel guilty about refunds obtained by stretching the truth, and teenagers may feel guilty about accepting money from struggling family members. In fact, feelings of "guilt about having money" have been reported as one of the most prevalent symptoms among individuals who acquired

sudden wealth, for instance, through entrepreneurship or inheritance (Money, Meaning & Choice Institute 2017). This research investigated how consumers deal with such guilt-tainted money.

We examined the effect of tainting money with moral guilt across six sets of studies, using a variety of guilt-induction methods, including auto-biographical recall, hypothetical scenarios, lab-based guilt inductions using bogus IAT feedback, and reminders of financial privilege. We observed that consumers' reactions to guilt-tainted money systematically depended on (1) the *moral nature* of the guilt and (2) the *association* between guilt and the money. We found that money tainted with moral guilt motivated pro-social spending of that tainted money, but not self-improvement spending, compared to self-control guilt or when the guilt was absent (H1; studies 1A and 1B). The fact that moral identity magnified the effect of moral guilt, but not the effect of self-control guilt (H2), confirmed that the difference in spending decisions was driven by the difference in the moral nature of the guilt. Moreover, compared to moral guilt unrelated to money or in the absence of moral guilt, moral guilt attached to money increased pro-social spending of that money more than other pro-social activities, such as volunteering time (studies 2, 3A, and 3C), or donating other, untainted money (studies 4A, 4B, 4C; H3). In other words, guilt motivated tainted-money-specific pro-social actions when the guilt was both (1) of a moral nature and (2) attached to the money being spent. This medium-specific compensation suggested that, when owning money tainted with moral guilt, participants were preoccupied with cleansing the tainted money (a proactive self-protection strategy) rather than repairing their moral self-view. Moreover, this attempt at cleansing the money was indeed effective, as merely pre-committing some of the money to a charity did reduce participants' feelings of immorality and guilt associated with the money (study 6).

Alternative accounts. In addition to providing direct evidence of the proposed moral cleansing process (based on the moderating influence of moral identity), our studies also directly addressed several alternative accounts for the effects of morally tainted money. First, receiving tainted money did not increase empathy towards victims (studies 1D and 4C). Second, participants did not try to maximally align the recipient of the money with the victim of the transgression. They donated to charities unrelated to the transgression and preferred to aid distant rather than close others even if the person they transgressed against was a close other (study 4C). Third, receiving tainted money did not increase pro-social spending merely because participants felt they did not deserve the money. Perceived deservedness was measured in study 3B and did not differ between conditions, whereas moral guilt did. Fourth, the effects were not driven by tainted money being perceived as windfall money, as it was not more likely to be spent on frivolous categories (studies 1C and 4B), unlike windfall money (O'Curry 1999). Finally, participants were not simply trying to rid themselves of the tainted money as it did not increase the intention to spend the money quickly (study 1B) or to spend it to pay off debts (studies 1C, 4A and 4B), which would get rid of the money without receiving anything tangible in return.

Theoretical Contributions

By connecting the literatures on (1) mental and emotional accounting, (2) moral emotions (in particular, guilt), (3) moral identity, and (4) compensatory consumption, we advance these literatures in several important ways.

First, we extend the work on "emotional accounting" (Levav and McGraw 2009) to provide evidence for "moral accounting." While Levav and McGraw (2009) demonstrated that

consumer spending is influenced by the valence (i.e., negative or positive) of the affect associated with money, we show that it can also be influenced by the moral nature of the emotion associated with money. Specifically, in the case of guilt, the findings of emotional accounting apply to money associated with self-control guilt, but not to money associated with moral guilt—which increases self-sacrificial, pro-social spending but not utilitarian spending on the self.

Second, our research represents the first attempt to distinguish between the effects of guilt based on its moral degree. Whereas research in social psychology tended to focus on guilt resulting from interpersonal relationships and thus conceptualized guilt as a typical moral emotion, consumer research commonly examined guilt resulting from personal self-control failures, such as indulging in desserts, which are less inherently moral. We connect these two research streams and show the need to assess the moral nature of guilt to predict its consequences.

Third, we add to the literatures on moral identity and compensatory consumption. Whereas prior research has shown that guilt can be bound to the *victim* and thus trigger victim-specific compensation (de Hooge et al. 2011), our research demonstrates that guilt can also be bound to *money*, triggering compensation specific to the tainted money. Receiving tainted money did not increase any other behaviors that could restore one's moral standing (e.g., volunteering time), but instead resulted in a specific attempt to cleanse the money. This suggests that binding guilt to money may be a way to isolate the negative moral implications of guilt to the money, instead of incorporating it to one's moral self-view—a proactive self-protection (vs. reactive self-repair) strategy against a self-threat .

Fourth, we add to the literature on *moral hypocrisy*—people's motivation to "appear moral while, if possible, avoid the cost of being actually moral" (Batson and Thompson 2001, 54), a description that is consistent with the behavior of participants in our studies. First, the

increase in pro-social actions was limited to the spending of the tainted money, and did not include spending of other resources. Second, participants were generally unwilling to donate the entire tainted money—and this effectively reduced the guilt associated with the remaining money. This is consistent with Batson and colleagues'(1999, 2001) observation that people seek to minimally self-sacrifice to the point where they can consider themselves moral, and can be seen as the corollary of people's tendency to behave dishonestly only to the point that they can still perceive themselves as moral (Mazar et al. 2008).

Future Research Directions

Our findings generate several important avenues for future research. For instance, future research could examine whether consumers associate moral guilt with objects other than money and consequently isolate the moral implications to those objects. While money is essentially an exchange good, most objects are much harder to part with. Consumers may therefore be less likely to associate guilt with these objects, which are likely to remain with them longer.

Future research could also investigate whether emotions other than guilt can be equally attached to money and influence spending of that money. One possibility is that consumers may isolate their feelings to the money only when those feelings have negative implications for the self. For instance, anger, which generally arises from other-attribution, may lack the tendency to be attached to money, just as anger does not attach to the perpetrator—its punitive effects are often carried over to others not involved in the anger-eliciting event (Lerner and Tiedens 2006).

Finally, future research can explore when receiving tainted money may lead consumers to behave more pro-socially in general, rather than limiting their pro-social actions to the spending

of the tainted money. A first possibility is when it is not possible for consumers to cleanse the tainted money. Yet, although there is support for more fluid compensation when the primary route to compensation is blocked (e.g., Heine et al., 2006), receiving tainted money did not increase donations of untainted money even when the tainted money had been spent (study 4A). A second, alternative approach would be to induce consumers to incorporate the guilt to their self-view rather than isolate it to the money by enhancing consumers' self-awareness. Moral hypocrisy literature shows that when self-awareness was high, people attributed the moral failure to the self, resulting in behavioral changes (Batson et al. 1999). Alternatively, consumers could be encouraged to define their initial transgression at a higher level, consistent with prior research showing that defining transgressions at a low level leads people to avoid incorporating the implications of guilt into their self-view (Baumeister et al, 1994).

Practical Implications

Our research has implications for a variety of stake holders, including both charitable organizations and consumers. First, our findings could help charities raise donations. While many existing donation appeals rely on the activation of guilt, they do not tend to link the guilt to money. Our research suggests that associating the guilt with money will more effectively increase donations. However, one common strategy that does involve a money-related guilt appeal may not be particularly effective: the strategy of sending potential donors envelopes with actual coins (to illustrate that it only costs pennies a day to help out; Jones 2010). While this strategy probably intends to create feelings of guilt about accepting money from a charity, our studies suggest that people who receive those envelopes may isolate their guilt to those particular

coins rather than associate it with their own funds. A more effective strategy for linking guilt appeals to money would be for charitable organizations to collaborate with industries that make the concept of money salient (e.g., the financial industry). For instance, displaying charity advertisements next to online bank statements might encourage consumers to link their financial privilege to these appeals and thus increase their desire to donate. Furthermore, charities that receive a certain percentage of profit from companies selling corporate social responsibility products (e.g., Product(RED)) might benefit from prioritizing their collaboration with banks or credit card companies (e.g., American Express (Red) Card) rather than other consumer product companies (e.g., Nike and Apple) since the former stimulates people to think about money.

Our results also have implications for consumers who want to make it easier to follow through on their charitable intentions. Past research has shown that consumers would often like to donate to charities more than they currently do, but are held back from meeting these lofty goals due to the pain of paying (Meyvis, Oppenheimer, and Bennett 2010). We propose that consumers could create a separate account for money that they may intend to partially donate at a later point in time, a more generalized moral equivalent of a "swear jar." This could include a portion of earnings that one feels morally uncomfortable about (e.g., monetary gifts from struggling family members or a consulting assignment for a dubious client). Setting aside such an account for money that symbolizes one's moral discomfort could help consumers isolate their guilt (while feeling better about the rest of the uncommitted money), as well as make it easier for them to follow through on their charitable intentions.

REFERENCES

Allard, Thomas and Katherine White (2015), "Cross-domain effects of guilt on desire for self-improvement products," *Journal of Consumer Research*, 42 (3), 401-19.

Anthony, Christina I. and Elizabeth Cowley (2012), "The labor of lies: how lying for material rewards polarizes consumers' outcome satisfaction," *Journal of Consumer Research,* 39 (3), 478-92.

Amodio David M., Patricia G. Devine, Eddie Harmon-Jones (2007), "A dynamic model of guilt: Implications for motivation and self-regulation in the context of prejudice," *Psychological Science*, (18), 524-30.

Aquino, Karl and Americus Reed, II. (2002), "The self-importance of moral identity," *Journal of Personality and Social Psychology*, 83 (6), 1423-40.

Ariely, Dan (2012), *The (honest) truth about dishonesty: How we lie to everyone--especially ourselves*, New York, NY: HarperCollins.

Austin, William and Elaine Walster (1975), "Equity with the world: The trans-relational effects of equity and inequity," *Sociometry,* 38 (4), 474-96.

Batson, C. Daniel and Elizabeth R. Thompson (2001), "Why don't moral people act morally? Motivational considerations," *Current Directions in Psychological Science, 10 (2),* 54-7.

Batson, C. Daniel, Elizabeth R. Thompson, Greg Seuferling, Heather Whitney, and Jon A. Strongman. (1999), "Moral hypocrisy: Appearing moral to oneself without being so," *Journal of Personality and Social Psychology, 77*, 525-37.

Baumeister, Roy F., Arlene M. Stillwell, and Todd F. Heatherton (1994), "Guilt: An Interpersonal Approach," *Psychological Bulletin,* 115 (2), 243-67.

Brockner, Joel, Jeanette Davy, and Carolyn Carter. (1985). "Layoffs, self-esteem, and survivor guilt: Motivational, affective and attitudinal consequences," *Organizational Behavior and Human Decision Processes,* 36 (2), 229- 44.

Dahl, Darren W., Heather Honea, and Rajesh V. Manchanda (2003), "The Nature of Self-Reported Guilt in Consumption Contexts," *Marketing Letters*, 14 (3), 159-71.

de Hooge, Ilona E., Rob M. A. Nelissen, Seger M. Breugelmans, and Marcel Zeelenberg (2011), "What Is Moral About Guilt? Acting "Prosocially" at the Disadvantage of Others," *Journal of Personality and Social Psychology,* 100 (3), 462-73.

Gino Francesca and Cassie Mogilner (2014), "Time, Money, and Morality," *Psychological Science,* 25 (2), 414-21.

Gino, Francesca and Lamar Pierce (2009a), "The abundance effect: unethical behavior in the presence of wealth," *Organizational Behavior and Human Decision Processes,* 109(2), 142-55.

Gino, Francesca and Lamar Pierce (2009b), "Dishonesty in the name of equity," *Psychological Science,* 20 (9), 1153- 60.

Heine, Steven J., Travis Proulx, and Vohs, Katheleen D. (2006), "The meaning maintenance model: On the coherence of human motivations," *Personality and Social Psychology Review,* 10 (2), 88–110.

Haidt, Jonathan (2003), "The Moral Emotions," in *Handbook of Affective Sciences,* ed. Richard Davidson, Klaus Scherer, and Hill Goldsmith, Oxford: Oxford University Press, 852-70.

Haidt, Jonathan and Selin Kesebir (2010), "Morality," in *Handbook of social psychology*, ed. Susan Fiske, Daniel T. Gilbert, and Gardner Lindzey, Hobeken, NJ: Wiley, 797-832.

Hoegg, JoAndrea, Maura L. Scott, Andrea C. Morales, and Darren W. Dahl (2014), "The flip side of vanity sizing: How consumers respond to and compensate for larger than expected clothing sizes," *Journal of Consumer Psychology*, 24 (1), 70–8.

IAT Corp. (2015), "Project Implicit," https://implicit.harvard.edu/implicit/.

Izard, Carroll E. (1977). *Human emotions.* New York, NY: Plenum Press.

Jones, Stacy (2010), "Charities Mail Out Coins, Hope for Larger Return," http://usatoday30.usatoday.com/news/sharing/2010-07-14-charity-coins_N.htm

Kim, Soo and David Gal (2014), "From compensatory consumption to adaptive consumption: The role of self-acceptance in resolving self-deficits," *Journal of Consumer Research*, 41(2), 526–42.

Kim, Soo, and Derek D. Rucker (2012), "Bracing for the psychological storm: Proactive versus reactive compensatory consumption," *Journal of Consumer Research*, 39 (4), 815-30.

Kivetz, Ran and Itamar Simonson (2002), "Earning the right to indulge: Effort as a determinant of customer preferences toward frequency program rewards," *Journal of Marketing Research*, 39 (2), 155–70.

Khan, Uzma, Ravi Dhar, and Klaus Wertenbroch (2005), "A behavioral decision theory perspective on hedonic and utilitarian choice," in *Inside consumption: frontiers of research on consumer motives, goals, and desires*, ed. S. Ratneshwar and David Glen Mick, London: Routledge, 144-65.

Lee, Jaehoon and LJ Shrum (2013), "Self-threats and consumption," in *The Routledge companion to identity and consumption*, ed. Ayalla A. Ruvio and Russell W. Belk, New York, NY: Routledge, 207-15.

Lee, Saerom, Karen Page Winterich and William T. Ross (2014), "I'm Moral, But I Won't Help You: The Distinct Roles of Empathy and Justice in Donations," *Journal of Consumer Research*, 41 (3), 678-96.

Lerner, Jennifer S. and Larissa Z. Tiedens (2006), "Portrait of the angry decision maker: How appraisal tendencies shape anger's influence on cognition," *Journal of Behavioral Decision Making*, 19, 115-37.

Levav, Jonathan and A. Peter McGraw (2009), "Emotional accounting: How feelings about money influence consumer choice," *Journal of Marketing Research*, 46 (1), 66-80.

Mazar, Nina, On Amir, and Dan Ariely (2008), "The dishonesty of honest people: A theory of self-concept maintenance," *Journal of Marketing Research*, 45 (6), 633–44.

Meyvis, Tom, Daniel M. Oppenheimer, and Aronte Bennett (2010), "Pre-Commitment to Charity," in *The Science of Giving: Experimental Approaches to the Study of Charity*, ed. Daniel M. Oppenheimer and Chris Y. Olivola, New York: Taylor and Francis, 35-48.

MacDonnell, R. and White, K. (2015)."How Construals of Money Versus Time Impact Consumer Charitable Giving", *Journal of Consumer Resea*rch, 42 (4), 551-63.

Mandel, Naomi, Derek D. Rucker, Jonathan Levav, Adam D. Galinsky (2017), "Mandel The Compensatory Consumer Behavior Model: How Self-Discrepancies Drive Consumer Behavior," *Journal of Consumer Psychology*, 27 (1), 133-46.

Meyvis, Tom, and Stijn M.J. van Osselaer (2018), "Increasing the Power of your Study by Increasing the Effect Size", *Journal of Consumer Research*, 44 (February), 1157-73.

Monin, Benoît and Alexander H. Jordan (2009), "The Dynamic Moral Self: A Social Psychological Perspective," in *Personality, Identity, and Character: Explorations in*

Moral Psychology, ed. Darcia Narvaez and Daniel K. Lapsley, New York, NY: Cambridge University Press, 341-54.

Nelissen, Rob M.A., and Marcel Zeelenberg (2009), "When Guilt Evokes Self-Punishment: Evidence for the Existence of a Dobby Effect," *Emotion*, 9 (1), 118-22.

O'Curry, Suzanne (1999), "Income source effects," working paper, Depaul University, Chicago, Illinois.

Okada, Erica Mina (2005), "Justification Effects on Consumer Choice of Hedonic and Utilitarian Goods," *Journal of Marketing Research*, 42 (1), 43-53

Oppenheimer, Daniel, Tom Meyvis, and Nicolas Davidenko (2009), "Instructional Manipulation Checks: Detecting Satisficing to Increase Statistical Power," *Journal of Experimental Social Psychology*, 45 (4), 867-72.

Ramanathan, Suresh, and Patti Williams (2007), "Immediate and Delayed Emotional Consequences of Indulgence: The Moderating Influence of Personality Type on Mixed Emotions," *Journal of Consumer Research*, 34 (August), 212-23.

Reed, Americus II, Adam Key, Stephanie Finnel, Karl Aquino, and Eric Levy (2016), "I don't want the money, I just want your time: how moral identity overcomes the aversion to giving time to prosocial causes," *Journal of Personality and Social Psychology*, 110(3), 435-57.

Rucker, Derek D. and Adam D. Galinsky (2008), "Desire to acquire: Powerless and compensatory consumption," *Journal of Consumer Research*, 35(October), 257–67.

Rucker, Derek D. and Adam D. Galinsky (2013), "Compensatory consumption," in *The routledge companion to identity and consumption*, ed. Ayalla A. Ruvio and Russell W. Belk, New York, NY: Routledge, 207–15.

Shweder, Richard A., Nancy C. Much, Manamohan Mahapatra, and Lawrence Park (1997), "The "big three" of morality (autonomy, community, and divinity), and the "big three" explanations of suffering," in *Morality and Health,* ed. Allan M. Brandt and Paul Rozin, New York: Routledge, 119-69.

Steele, C. M. (1988), "The psychology of self-affirmation: Sustaining the integrity of the self," in *Advances in experimental social psychology,* Vol. 21, ed. Leonard Berkowitz, New York: Academic Press, 261-302.

Smith, Greg (2012), "Why I am Leaving Goldman Sachs," *The New York Times*, March 14, A27.

Strahilevitz, Michal and John G. Myers (1998), "Donations to Charity as Purchase Incentives: How Well They Work May Depend on What You Are Trying to Sell". *Journal of Consumer Research*, 24 (4), 434–46.

Tangney, June P., Jeff Stuewig, and Debra J. Mashek (2007), "Moral Emotions and Moral Behavior," *Annual Review of Psychology*, 58 (1), 345-72.

Thaler, Richard H. (1999), "Mental Accounting Matters," *Journal of Behavioral Decision Making* 12 (3), 183-206.

The Economist (2013), "Origins of Financial Crisis: Crash Course," http://www.economist.com/news/schoolsbrief/21584534-effects-financial-crisis-are-still-being-felt-five-years-article/

The New York Times Room for Debate (2012), "Does morality have a place on Wall street," http://www.nytimes.com/roomfordebate/2012/03/15/does-morality-have-a-place-on-wall-street/

Wicklund, Robert A., and Peter M. Gollwitzer (1982), "*Symbolic self-completion*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Table 1: Results of Studies 1B, 1C, 4A and 4B: Spending Decisions

	Condition		Pro-social Spending: Charitable donation	Pro-social Spending: Charity (vs. self)	Myself	Gifts for others	Treating others	Saving	Debt	Utilitarian products	Virtues	Necessities	Hedonic products	Vice	Luxury
Study 1B (N = 584)	Moral guilt		$68[a]		--	3.90	4.30	6.10[a]	6.93[c]	--	--	--	--	--	--
	Self-control guilt		$28[b]		--	4.07	4.56	6.83[b]	7.31[d]	--	--	--	--	--	--
	Control		$31[b]		--	4.14	4.46	7.17[b]	7.11	--	--	--	--	--	--
Study 1C (N = 95)	Moral guilt		4.27[a]	--	5.50[a]	4.94	4.85	6.42	--	4.67	4.54	7.60	3.06[a]	2.65[a]	2.79
	Control		3.19[b]	--	7.09[b]	4.74	4.96	7.09	--	4.87	4.91	7.45	4.79[b]	3.77[b]	3.43
Study 4A (N = 146)	Refund	Moral guilt	4.46[a]	27%[a]	--	5.00	--	7.21	5.51	6.41	5.95	7.36			
		Control	2.87[b]	15%[b]	--	4.62	--	7.37	5.56	5.91	5.91	7.22			
	Gift	Moral guilt	3.41	17%	--	4.57	--	7.54[a]	5.62	5.16	4.78	7.14			
		Control	3.37	17%	--	4.68	--	6.37[b]	4.58	5.61	5.66	7.03			
Study 4B (N = 620)	Prize	Moral guilt	3.68[a]	--	--	4.73	4.87	--	6.40[a]	4.66	4.71	6.85	4.37	3.38	3.73
		Control	2.99[b]	--	--	4.58	4.68	--	7.01[b]	4.60	4.29	7.22	4.47	3.36	3.53
	Deposited	Moral guilt	3.06	--	--	4.29	4.21	--	7.02	4.78	4.27	7.21	4.46	3.43	3.37
		Control	3.30	--	--	4.39	4.52	--	6.86	4.91	4.35	7.33	4.51	3.19	3.44

Note1: means with superscripts *a*, *b* differ significantly at α = .05. Means with superscripts c, d differ marginally at α = .09.

Note 2: the complete methods and results for studies 1C and 4B are reported in the web appendix.

Note 3: for studies 4A and 4B, superscripts denote the differences within each money type condition.