Giving Money versus Giving Time:

The Effect of Moral Compensation on Evaluation of Transgressions

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
Joseph L. Rotman School of Management
University of Toronto

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Abstract

After committing a moral transgression, people are more willing to give their own money and time—two very valuable resources—for prosocial causes, as a way to compensate. But can the method of compensation influence the way individuals evaluate their own transgressions? Rather than distinguishing between money and time, research in the moral regulation literature has often treated the two as interchangeable resources. However, based on prior research showing that money and time have distinct psychological meanings, the present research shows that the method of compensation can differentially influence individuals’ evaluations of their own past misdeeds. Drawing upon the theoretical framework of moral credits and credentials, I posit that donating money allows individuals to feel as if they are accruing moral credits by which they can “pay off” any moral debts incurred through transgressing. In contrast, I posit that volunteering time allows individuals to establish moral credentials, which are specific to the domain of the charity and are not transferrable to unrelated transgressions. Across multiple experiments, I demonstrate that, following a transgression, individuals who compensate with money (versus time), by giving to an unrelated charitable cause, feel less guilty about their past misdeed and perceive the behavior to be less immoral. Conversely, when the charitable cause is related to the
transgression, compensating with time or money both reduce guilt and other negative evaluations associated with the transgression similarly. These results have important implications for understanding how people regulate their moral emotions and behaviors.
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INTRODUCTION

“Paying for your sins” is a familiar concept to most people, even those who are not religious. After all, this concept taps into people’s basic motivation to maintain a sense of moral worth: If one does something bad, then one feels obligated to do something good to maintain one’s image of the self as moral. Let us consider a concrete example: Alex, who is typically a good student, decides to give into the temptation to cheat on a difficult exam by peeking at her neighbour’s answers. She exits the exam hall, feeling somewhat discomfited by the decision she made. Immediately outside of the building, Alex is greeted by a volunteer wearing a Greenpeace t-shirt. The volunteer asks Alex if she would be willing to make a small monetary donation to the charity. Will Alex agree to donate? Presumably, if Alex were still experiencing lingering guilt from cheating on her exam, she would be more likely to comply in order to feel better about herself and her earlier moral lapse. Indeed, engaging in immoral behaviors threatens to send one’s moral self-perception off-kilter (e.g., Sachdeva, Iliev, and Medin 2009), and thus people are motivated to engage in compensatory behaviors to regain their moral self-worth. People are far more likely to comply with requests to help after having committed a transgression, as a means to alleviate their guilty feelings. These helpful and prosocial behaviours that transgressors engage in typically require the use of personal resources in the form of money and/or time—two resources that are highly valued.

Compared with individuals who have not committed any misdeeds, guilty people are more willing to spend time to help someone in need (e.g., Freedman, Wallington, and Bless 1967; Regan, Williams, and Sparling 1972) and are also more willing to donate their money to charities (e.g., Jordan, Mullen, and Murnighan 2011; Sachdeva et al. 2009). Non-profit organizations capitalize on this tendency and employ appeals to guilt to attract donors and
volunteers for their causes. For example, as a way to encourage compensatory behaviors in the form of monetary donations or volunteer hours, environmental groups often remind people that their daily behaviors have a negative impact on the natural ecosystem. Charitable organizations often try to make consumers feel guilty about having more wealth and resources than various impoverished groups (e.g., homeless people, sick children, etc.) and then request a charitable contribution as a way to offer the consumer relief from the guilt. For example, UNICEF attempted to “guilt trip” consumers into donating by launching an ad with a photo of an emaciated child along with a text appeal: “He’s starving. We’re not. It’s time to share.” The Canadian Blood Services employs a similar technique with their motto, “Blood, it’s in you to give.” Presumably, by refusing to donate, individuals would experience guilt when they are reminded that they ought to share their resources when they have an abundance compared with other in-need groups.

While past research has shown that people’s likelihood of engaging in prosocial behaviours increases after they are reminded of past misdeeds, the literature is silent on whether transgressors can actually forgive their own bad behaviour following an act of compensation. Can the act of compensation shape the way individuals evaluate their own immoral behaviors? Can one’s sins be struck off of the “moral ledger” once one “pays” for them? In this dissertation, I examine how the type of compensation can allow individuals to reevaluate their past transgressions. That is, depending on the type of compensation, individuals may feel less guilty over their past misdeeds and perceive their actions to be more permissible and less immoral. On the basis of research suggesting that money and time have different psychological meanings (e.g., Mogilner and Aaker 2009; Reed, Aquino, and Levy 2007) and evoke very different mindsets (e.g., Mogilner 2010; Vohs, Mead, and Goode 2006), I argue that that giving money versus giving time as acts of compensation can lead to very different outcomes in terms of how
individuals feel about their past misdeeds. I integrate the literatures on money versus time and moral regulation to examine the evaluation of transgressions after compensation.

From the moral regulation literature, I draw upon the nascent theoretical framework of moral credits and credentials (cf. Merritt, Effron, and Monin 2010; Miller and Effron 2010) to suggest that giving money allows one to accrue moral credits whereas giving time allows one to establish moral credentials. While this framework is relatively new and used primarily to explain moral licensing, I adapt it to fit the moral compensation domain, which is one of the key contributions of this research. This framework posits two routes by which people can interpret and understand their moral behaviours. The moral credits route suggests that individuals consider their own morality as akin to a bank account: Engaging in various good behaviours allows them to accrue moral credits and engaging in any bad behaviours would leave them with moral debits. People are motivated to maintain an overall balanced moral “bank account”. I posit that the psychological properties of money encourages individuals to view donating money as accruing positive moral credits for their moral “bank account”. The moral credentials route, on the other hand, suggests a different process by which people interpret their moral behaviours: Individuals’ good deeds in a given domain establish them as good people in that particular domain (e.g., if individuals recycle, they may think of themselves as environmentally conscious people). I argue that the psychological properties of time encourages individuals to view their volunteering behaviour as establishing moral credentials in the specific domain of contribution. Presumably, under a moral bank account perspective, credits from any good behaviour can be applied against debits from any past bad behaviour. However, because credentials are closely linked to the domain of contribution, good behaviours that establish credentials should only be able to directly address past bad behaviours when they are obviously related; otherwise, the credentials should not be able to absolve the past transgression.
Now, referring back to the example of Alex the university student: Assume that she did indeed donate money to Greenpeace. How would she then feel about her cheating behaviour? According to this line of reasoning, she would feel less guilty about cheating because the good behaviour balances out the bad one. What if, instead of asking for money, the Greenpeace volunteer asked if Alex was willing to give her time? Establishing credentials as an environmental person would not be able to address Alex’s cheating behaviour because being environmental does not excuse cheating behaviour; thus, Alex’s evaluations of her previous misdeed would remain unchanged.

In this dissertation, I demonstrate that, following a transgression, individuals who compensate with a monetary contribution will feel less guilty about any given past transgression and perceive it to be less immoral compared with those who compensate with a contribution of their time. In the specific situation where the domain of the compensation matches the domain of the transgression, compensating with money or time will both reduce guilt and other negative evaluations related to the transgression. Prior work has demonstrated that people do indeed engage in compensatory behaviours following transgressions. I contribute to this literature on moral regulation by examining whether people actually re-evaluate their transgressions post-compensation, and feel less guilty about their past misdeeds. Further, I integrate findings from the money versus time literature to support the claim that the type of compensation will affect the way people construe their good deed, which in turn predicts whether or not they can forgive their past transgressions.
THEORETICAL BACKGROUND

Moral Regulation and Compensation

People are motivated to view themselves as moral beings—and, in fact, people have a tendency to evaluate themselves as more moral than the average person, even though it is statistically improbable (Epley and Dunning 2000). They are motivated to maintain this positive view about themselves. When they fall short of their personal moral standards they behave in compensatory ways to make up for their transgression. Zhong, Liljenquist, and Cain (2009) likened the motivational force of moral regulation to a rubber band. They argued that when self-perception deviates from the ideal moral standard, the rubber band stretches and provides motivational force. The moral tension signals to the individual that he or she needs to refrain from further transgression and to behave in more moral ways to ease the tension.

Guilt arises from individuals’ wrongdoings and signals to the individual that action needs to be taken to rectify the situation (Tangney 1995). Decades of research have shown that guilt over committing transgressions increases the likelihood of cooperation, helping, and altruism (e.g., Baumeister, Stillwell, and Heatherton 1994; Carlsmit, Liljenquist, and Cain 2009) likened the motivational force of moral regulation to a rubber band. They argued that when self-perception deviates from the ideal moral standard, the rubber band stretches and provides motivational force. The moral tension signals to the individual that he or she needs to refrain from further transgression and to behave in more moral ways to ease the tension.

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compliance offers one the prospect of guilt reduction, even when the action is unrelated to the initial misdeed. According to Aquino and Reed (2002), people’s moral identities are made up of various traits from friendliness to fairness to compassion. When one’s moral identity is threatened, the reparation process may involve any given subset of one’s moral traits. Hence, the compensatory behaviour does not have to directly address the damage caused by the initial transgression in order for one’s moral identity to be repaired. In fact, the transgression need not occur in the present for individuals to experience moral tension: Even recalling transgressions from the past can increase compliance with subsequent requests for help (Zhong and Liljenquist 2006) and intentions to donate and volunteer (Jordan et al. 2011).

In summary, the moral regulation mechanism can be activated by committing a range of transgressions (e.g., shocking a fellow participant, damaging someone else’s property, ruining an experiment) or by recalling past transgressions, which in turn motivates transgressors to reaffirm their moral identity by engaging in compensatory behaviours. Transgressors become more likely to engage in any subsequent prosocial behaviours when the opportunity arises, even if the victim of the transgression does not benefit from the prosocial action. In many of these experiments on moral regulation, the subsequent prosocial opportunities that were presented to the participants were unrelated to the participants’ initial transgressions.

Although it is assumed that individuals compensate in order to feel better about their overall moral worth, this literature is silent on transgressors’ post-compensation experiences with regard to the initial transgression. That is, are individuals able to forgive themselves for their past transgressions after compensating for them? Do they perceive their past transgressions as more permissible once they are in good moral standing again? To address these questions, I argue that it is important to consider the method of compensation. The ways that transgressors can compensate to repair their damaged moral image are numerous—for example, making calls
for a prosocial cause (Carlsmith and Gross 1969), helping someone pick up dropped items (Regan et al. 1972), agreeing to participate in an additional experiment without payment (Zhong and Liljenquist 2006), donating experimental payment to a charity (Sachdeva et al. 2009), and even simply expressing intentions to volunteer for and donate to charitable causes (Jordan et al. 2011). These different methods of compensation share a significant commonality: All of them require the transgressors to give either their money or their time—two important and limited resources—for prosocial purposes.

In the moral regulation literature, giving up one’s resources to aid in a prosocial cause is presumed to be sufficient to repair one’s damaged moral identity, and in this context, money and time are treated as interchangeable resources since giving either money or time would be a prosocial behaviour. That is, money and time are seen as comparable methods to compensate for the past misdeed. However, extensive research on money and time suggest that they have distinct psychological meanings. In the following section, I discuss findings from the literature on money and time that lend support to my prediction that giving money versus giving time as compensation can lead to very different outcomes in terms of how individuals feel about their past misdeeds.

**The Psychology of Money and Time**

Money and time are both important and complex constructs that have captured the attention of researchers over the past several decades. Although both are fundamentally important and valued resources, the use and allocation of money and of time differ greatly. For example, time is less fungible than money because it cannot be accumulated or recovered once it is lost; therefore, losing time feels more painful than losing money (Leclerc, Schmitt, and Dubé 1995). Time is also more difficult to keep track of than money; hence, people are less
susceptible to the sunk-cost effect when dealing with time (Soman 2001), and they feel less accountable for how they spend their time compared with their money because measuring time is more ambiguous than measuring money (Okada and Hoch 2004).

Some recent research on money and time has focused on the effects that the mere salience of these constructs can have on subsequent judgments and behaviours. Simply priming the construct of time versus money can affect subsequent helping behaviours (Vohs et al. 2006; Vohs, Mead, and Goode 2008), attitudes toward products (Mogilner and Aaker 2009), and interpersonal interactions (Mogilner 2010). Vohs, Mead, and Goode (2006) argue that being primed with the construct of money (e.g., by seeing pictures of currency, seeing words that are related to money and finances) leads to the belief of self-sufficiency, and results in individuals choosing to distance themselves from others. Money is perceived to be a tool, as a means to enable one to solve problems and attain goals (Lea and Webley, 2006; Vohs and Baumeister, 2011). Vohs and Baumeister (2011) argue that “[money] enables individuals to move the social system to give them what they want” (p. 140). In sum, money is used as a unit of exchange, whereby money is traded for some other object of value. In contrast, thinking about time leads to a very different mindset. Cuing people with the construct of time (e.g., counting calendar days, seeing words related to time) leads them to seek out more social contact (Mogilner 2010) and more thoughtful self-reflection (Gino and Mogilner 2014). Thinking about spending time leads to increased perception of personal connection to others, and even with inanimate products (Mogilner and Aaker 2009). Considering spending time leads to an increased connection between the individual and a specific target. Thinking about money, on the other hand, leads to increased distance between the individual and the target, and focuses the individual on the functional use of the target (Fiske 1992; Vohs, Mogilner, Newman, and Aaker 2012). Money
and time have strong and distinct meanings, such that even implicit reminders of these resources can change the way individuals engage with each other.

Importantly, and more relevant to the present research, money and time have also been examined in the context of charitable giving, and the meanings of these two resources have been shown to affect the decisions people make about how to use money and time in prosocial ways. For example, when individuals are asked if they are willing to volunteer time (vs. donate money) for a charity, they are more likely to consider their personal happiness that would result from giving to the charity (Liu and Aaker 2008). According to Liu and Aaker, this is because thinking about giving time leads individuals to focus on the emotional meaning of the action (e.g., how it will affect their personal happiness), whereas giving money leads individuals to focus on the economic utility of the action (e.g., how the charity will use the money). Giving time leads to considerations about what the charity and the cause means to them, whereas giving money leads to more functional, exchange-oriented considerations. Individuals also believe that giving time is more reflective of their personal identity whereas giving money is less representative of the self (Reed, Aquino, and Levy 2007). In particular, people who are concerned about being caring and compassionate report that giving time feels more moral and more self-expressive than giving money. Taking all these results together, giving time (vs. giving money) would more closely link the self with the charity and would be seen as more reflective of the self in relation to the charity (e.g., “I am the type of person who cares about this specific cause”).

Past research has focused primarily on factors that influence the willingness to engage in charitable giving (e.g., concern about one’s moral self-concept). In the present research, I specifically examine a compensatory context in which the motivation to give money or time arises from the need to recover from a past transgression. How would individuals feel about
their past transgressions after giving money versus giving time in this compensatory context? Given the differences between money and time as described above, one might conclude that compensating with time should be more effective in allowing individuals to forgive their past misdeeds because giving time is more personally meaningful than giving money. However, I argue for the opposite case: Because giving time connects the individual with the specific charity, individuals are unable to transfer the morally good feelings gained from the charitable action to any given past transgression. On the other hand, because money allows individuals to distance themselves from the specific charitable cause, the morally good feelings gained from their charitable action can be applied to any past transgression. Drawing upon the moral credits and credentials framework from the moral licensing literature, I propose that there is a parallel between giving money versus time and accumulating of moral credits versus establishing moral credentials, and that people ascribe different meanings to giving money versus giving time.

Two Routes of Moral Regulation: Credits and Credentials

Considering the rubber band analogy mentioned earlier (Zhong, Liljenquist, and Cain 2009), the moral rubber band “stretches” when there is deviation from some optimal standard of moral self-perception. When there is tension from the “stretch”, people engage in various moral behaviours to alleviate the tension. As explained earlier, moral compensation occurs when individuals engage in prosocial behaviours to make up for a past misdeed. The moral credits and credentials framework describes two potential routes by which people interpret and regulate their moral behaviours. Thus far, this framework has only been examined in the context of licensing, another component of the dynamic moral regulation process. Moral licensing occurs when individuals first engage in good behaviours and then feel licensed to engage in subsequent, future bad behaviours without fear of damaging their moral sense of self (for
reviews, see Merritt, et al. 2010 and Miller and Effron 2010). Licensing can occur through accruing moral credits or establishing moral credentials. Effron and Monin (2010) described the moral credits model as thus: “Actors [have] a moral bank account. Good deeds would represent moral credits to the account, whereas bad deeds would represent moral debits” (p. 1619). Individuals who have accrued moral credits can then “purchase” the right to do bad deeds (Merritt et al. 2010). Under this particular model, moral credits can be applied to any subsequent transgression. For example, consumers who purchase environmentally friendly products are more likely to cheat on subsequent tests because they feel licensed to do so (Mazar and Zhong 2010), even though cheating is unrelated to being environmentally conscious. Recalling past good deeds can grant people license to indulge or engage in non-prosocial behaviours (e.g., Jordan et al., 2011; Khan and Dhar 2006); even anticipating doing good deeds in the future can elicit licensing behaviours (e.g., Cascio and Plant 2015). By this logic, credits should be able to be applied to any salient past transgression as well. In a compensatory context, one should be able to “pay off” past transgressions and rebalance their overall moral account by engaging in a morally good behaviour in the present.

The moral credentials model proposes a different process: Rather than accruing transferrable credits, an individual’s good deeds establish him or her as a good person in the domain of the good deed (Effron and Monin 2010). This phenomenon is often studied in the context of prejudice. Monin and Miller (2001) found that when people were able to establish themselves as non-misogynistic by disagreeing with blatantly sexist comments, they were more likely to hire a male applicant over a female applicant for a job. Similarly, Effron, Cameron, and Monin (2009) demonstrated that white participants were more likely to discriminate against black people after having the opportunity to endorse Barack Obama. Past behaviours can be used to inform the intentions of present behaviours: If individuals can first establish themselves
as non-prejudiced, then they will not view their subsequent behaviour (a transgression) as prejudiced. Because moral credentials are established in a particular domain, a transgression can be excused only if it occurs in the same domain. For example, if a hiring manager first establishes himself as a non-sexist person, he can justify hiring a male employee over a female employee as being non-discriminatory. However, he cannot use the same non-sexist credentials to justify hiring a white employee over a black employee. I argue that this process should also occur when considering immoral behaviours from the past. If a current moral behaviour establishes credentials within a certain domain, these credentials cannot be used to explain away the immorality of a past, unrelated behaviour. On the other hand, if the current moral behaviour is in the same domain as a past transgression, then the moral credentials from the current behaviour can excuse the past misdeed.
CONCEPTUAL FRAMEWORK

There are two potential routes by which people can categorize and understand their prosocial behaviour: They can view it as a good behaviour that gains them overall “credit”, or they can perceive the good behaviour as reflective of a part of their own identity and establish credentials related to that particular behaviour. Although this framework is relatively new and has only been examined in the moral licensing literature (where the good behaviour licenses a subsequent bad behaviour), I propose that it can be adapted to explain compensatory behaviour as well. That is, the moral compensatory behaviour following a transgression can also be understood as “gaining credits” or “establishing credentials”. The meaning ascribed to the act of compensation will depend on the type of compensation.

The metaphor of the moral bank account and moral credits and debits directly parallels how money is typically accumulated and used. After all, a typical bank account can also contain credits and debits depending on the in and out flow of money. Applying this reasoning to a compensation context, the credit resulting from giving money to a charitable cause could be carried over to the moral debt from the transgression, which could be used to “pay off” the debt. For example, attaching a monetary fine to an undesirable behaviour may lead transgressors to view the fine as simply a price for the bad behaviour (Gneezy and Rustichini 2000). In a field experiment, Gneezy and Rustichini (2000) found that when parents who were late in picking up their children from preschool were penalized with a monetary fine, their undesirable late behaviour actually persisted over time. Adding a fine reshaped the parents’ perception of their transgression: They no longer viewed their lateness as a problematic behaviour. As such, I predict that individuals should no longer feel the moral tension resulting from that specific transgression after giving money; hence, they would be more forgiving and lenient when
reevaluating their transgressions. This pattern of behaviour should not be limited to situations where the transgression and compensation are related. After all, the literature on guilt and compliance suggest that compensation can take place separate from the transgression (e.g., O’Keefe 2002). In addition, because money is seen as a tool to solve problems (Vohs and Baumeister 2011), individuals can regard giving money as a way to address and alleviate the discomfort from the moral tension created by the transgression.

Because giving time is more representative of one’s identity than giving money (Reed et al. 2007) and serves as a signal of the type of person one is (Gino and Mogilner 2014), I propose that giving time allows one to establish credentials only in the domain of the compensation. For example, one may think, “If I give my time to an environmental organization, then I must be an environmentally conscious person”. This individual would infer that being environmentally conscious is a cause that she cares about and she gave her time for the cause because she cares about this specific issue (Bem, 1972). She would not be likely to infer that she gave time to the environmental organization due to guilt related to her past misdeed. Thus, feeling like an environmentally conscious person would be less likely to excuse her from an unrelated behaviour such as cheating on an exam.

**H1**: Giving money will be more likely to reduce negative evaluations of past transgressions compared with giving time.

However, if the relationship between the act of compensation and the transgression is more direct and more obvious, then giving time should also allow a re-evaluation of the transgression. Based on the findings from Monin and Miller (2001), engaging in current non-prejudiced behaviour can excuse an individual’s future discriminatory behaviour. Accordingly,
giving time to support a minority group and thus establishing credentials as a non-prejudiced person should excuse one’s past discriminatory attitudes as well because the connection between the two actions is obvious and explicit. That is, an individual who affirms her identity as a non-prejudiced person should be able to forgive her own past discriminatory behaviour.

**H2:** Giving time will reduce negative evaluations of past transgressions only when the act of compensation is clearly related to the transgression, while giving money will reduce negative evaluations of past transgressions when the act of compensation is either related or unrelated to the transgression.

The proponents of the moral credits and credentials framework have raised one key issue that, at first blush, appears to contradict my predictions: When individuals have accrued enough moral credits, they are more willing to engage in bad behaviours even though they recognize the behaviours to be immoral (Effron and Monin 2010; Merritt et al. 2010; Miller and Effron 2010). By contrast, I predict that giving money (and thus accruing moral credits) should allow individuals to perceive their past transgressions as being less immoral. I reconcile these two viewpoints by emphasizing that people are highly motivated to view themselves and their behaviours as moral (Epley and Caruso 2004; Mazar, Amir, and Ariely 2008). Indeed, people are equipped with numerous cognitive mechanisms they can adopt to avoid moral self-censure, such as rationalization and cognitive distortion (Bandura et al. 1996) and diverting their attention away from moral standards so that they may engage in dishonest behaviours without damaging their moral self-concept (Mazar et al. 2008). Under the moral licensing framework, the transgression is in the future and has yet to be committed; hence, when individuals are evaluating future transgressions, they are already in good moral standing (i.e., they have a
surplus of moral credits) and have no moral tension to resolve. However, when individuals are considering transgressions they have already committed, they would be motivated to maintain the perception that they are moral people and would thus be more willing to reevaluate their past misdeeds as less immoral if they feel they have sufficient reason to do so (i.e., if they possess moral credits).

In summary, giving money and giving time both signal to the individual that they have done a moral behaviour and both actions are likely to make the individual feel good. The key difference is that the good feeling arising from giving money in the form of moral credits is more easily applied across transgressions because the credits can be applied to any debits, and thus can alleviate negative feelings towards any given transgression. However, the good feeling arising from giving time in the form of moral credentials can only be applied to relevant and related transgressions, and can only alleviate negative feelings towards that specific transgression.
OVERVIEW OF STUDIES

I tested these predictions across six experiments. It is important to note that there are challenges and limitations to experimental elicitations of transgressions. Due to ethical concerns, transgressions that can be induced in experimental settings are relatively innocuous, and thus may lead to low levels of guilt. In addition, Blanken, van de Ven, and Zeelenberg (2015) suggest that, at times, using recall techniques to elicit guilt may backfire and make people feel good instead: If participants find it difficult to recall immoral behaviours, they might make the inference that they are actually quite moral. Therefore, a range of elicitations of transgressions is necessary. In addition, it is possible that participants may have strong, divergent opinions about popular charitable organizations (e.g., some people may support the Salvation Army, whereas others may oppose the organization because of its anti-LGBT stance). To reduce the likelihood of participants having strong priors about any given charity in my experiments, I used a variety of less well-known charities.

In Experiment 1, I investigated whether compensating with money would lead to a reduction in transgression-related guilt compared with compensating with time. Experiment 2 replicated the effect of giving money on reduction in transgression-related guilt using a different experimental procedure, in a different sample population. In Experiment 3, I tested to see if the effect would persist when participants thought about time in terms of money. I demonstrated that even when time is assigned a monetary value, the effect persisted because of the difference in the meaning of giving money versus giving time. Experiment 4 compared the effect of compensating (with money or time) with not compensating at all (a control group) to find that giving money reduces guilt rather than giving time increases guilt. In Experiment 5a, I investigated a moderating condition where giving time also reduced transgression-related guilt:
When the domain of the compensation matched the transgression. In Experiment 5b, I demonstrated that the meaning attributed to the act of compensation differs depending on the domain and type of compensation.

I conclude this dissertation by ruling out several alternative explanations, discussing the implications of these findings, and exploring future directions.
EXPERIMENT 1

The purpose of Experiment 1 was to test whether compensating with money versus time would differentially affect the perception of moral transgressions in a controlled laboratory setting. Specifically, I posit that after donating money (vs. volunteering time), individuals would feel less guilty about their past transgressions and perceive them to be less immoral.

Design and Procedure

Undergraduate commerce students ($N = 39$; mean age = 21.4 years; 54% female) participated in the experiment for course credit and were randomly assigned to compensate with time or compensate with money. Under the guise of a study about students’ perceptions on different situations in life, I first asked all participants to read a scenario about a student deciding to cheat on an important exam. The situation described in the scenario was highly relevant to the sample population. The scenario was written from a second-person point of view and participants were instructed to imagine the situation as if they were experiencing it themselves (i.e. as if they themselves were cheating on the exam). Participants imagined themselves struggling on a question and noticing that the exam answers were visible on the professor’s desk; they decided to copy the answers once they realized that no one was watching and the chance of being caught was low. Participants were told to visualize this event and to keep it in mind, as they would be requested to answer questions about it later in the experimental session (see Appendix 1).

Subsequently, in an ostensibly separate study, the participants read about an upcoming fundraising event. The event was supposedly occurring over the course of a weekend in support of the Leukemia and Lymphoma Society (LLS), a non-profit organization that focuses on issues
related to blood cancers. All participants read a short description of the event, and half of the participants were told that volunteers were needed to set up the event (time condition). The remaining participants were told that donors were needed to sponsor the event (money condition). Participants in the time condition were asked to report how many hours they would be willing to volunteer; participants in the money condition were asked to report how many dollars they would be willing to donate (see Appendix 1).

Participants were then asked to recall the cheating scenario they had read earlier in the study and report how guilty they felt about cheating, how immoral cheating was, and how harmful cheating was (1 = not at all, 9 = very much). The three judgments about cheating (guilty, immoral, harmful) were averaged to form a “feeling bad” score (α = .79). I use these measures to assess how individuals evaluate their past transgressions throughout the rest of the experiments (see Appendix 1). I note that, in general, feelings of guilt may be tapping into a somewhat different underlying construct as evaluations of immorality and harm. Further, assessment of guilt may affect their assessment of immorality and harm. Feelings of guilt may lead individuals to perceive their transgressions as more harmful, or conversely, the level of perceived harm may cause individuals to experience higher levels of guilt. The causal direction of these attitudes toward the transgression is beyond the scope of the present research. For the purposes of the present research, because these three items are highly related across all experiments, I group these attitudes (feelings and evaluations) as a single, overall judgment about the transgression. When these three items were analyzed individually, the scores on guilt, immorality and harm differed between the money and time conditions. That is, even when analyzed separately, responses on transgression-related guilt, the immorality and harmfulness of the transgression were significantly lower for participants in the money condition compared
with those in the time condition. Across all studies, guilt always preceded the other two items. It may be possible that evaluating feelings of guilt first affected the way participants evaluated the immorality of the act of transgression. Hence, this composite measure may be closer to an approximation of guilt. Throughout the studies, I consider transgression-related guilt and evaluations of immorality of the transgression as interchangeable constructs. I speculate on their distinctive properties in the General Discussion.

**Results and Discussion**

In support of my predictions, I found that participants who expressed willingness to donate money to the charitable event reported feeling less bad about the transgression ($M_{\text{money}} = 3.95$, $SD = 1.81$) compared with participants who expressed willingness to volunteer time for the event ($M_{\text{time}} = 5.48$, $SD = 1.12$, $F(1, 37) = 9.64$, $p < .01$).

The results of Experiment 1 provide initial evidence that, indeed, individuals who considered donating money evaluate their transgressions more leniently than those who considered volunteering time. Those who considered donating money reported feeling less guilty about their transgression and perceived it to be less immoral and less harmful. I argue this occurs because giving money allows individuals to accrue credits that they may “pay off” any salient moral transgression. But because the charitable cause is unrelated to the transgression, the established credentials from giving time to the LLS cannot be transferred to the negative

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1 These three measures, when analyzed individually, differed between the money and time conditions in the remaining studies, either significantly or at least directionally.

2 On average, participants in the money condition reported that they would be willing to donate $107.25 (SD = 230.79) and participants in the time condition reported that they would be willing to volunteer 7.11 hours (SD = 5.83). It is worth noting that the variation in dollars is extremely high. Because these are hypothetical dollars, participants may not have seriously considered the amount of money they would be actually willing to donate. Neither the amount of money, $r(16) = .09$, $p = .73$, nor the amount of time correlated with the evaluation of the transgression, $r(19) = .02$, $p = .92$. Subsequent experiments employ a different measure of willingness to give.
evaluations of cheating. That is, being someone who cares about improving the lives of cancer patients does not excuse their prior cheating behaviour.

However, Experiment 1 has several limitations: 1) The transgression was hypothetical, and 2) participants only indicated their willingness to donate or volunteer and did not actually engage in compensatory behaviours. In the following experiment, I sought to address this limitation by asking participants to actually donate money and volunteer time. In addition, it is possible that students’ valuations of money and time are different from the general population. For example, compared with the general population, students may feel that they lack money because they do not have full-time jobs; alternatively, they may feel that their time is more limited because of ever-present deadlines. To ensure that my results could be generalized, I conducted the following experiment with a more diverse population that varied in age and educational level.
EXPERIMENT 2

Experiment 2 was conducted to ensure that the results of the previous experiment would generalize to a more diverse sample population, and involving transgressions that individuals actually engaged in. Furthermore, this study served to confirm that actually giving money or time in a charitable context would have the same consequences as merely expressing willingness to give money or time.

This experiment was conducted with participants recruited from MTurk. The typical wage rate of MTurk is $6 per hour, which is significantly less than the minimum wage rate that the students in Experiment 1 are accustomed to, suggesting that MTurk participants may have different valuations of money and time than university students. I hypothesized that the effect of giving money (vs. time) on evaluations of past transgressions would primarily depend on the meanings of giving money versus giving time. That is, irrespective of individuals’ specific valuations of money and time, being willing to donate money for a charitable cause should be sufficient for the individual to accrue moral credits to “pay off” a past transgression. Hence, I predicted that the effects of Experiment 1 would be replicated in the present experiment.

Design and Procedure

Participants were recruited through MTurk ($N = 70; \text{mean age} = 37.69 \text{ years}; 57\% \text{ females}) and completed the experiment online. They were randomly assigned to the money condition or the time condition. Participants were informed that they would be paid $0.30 for 3 minutes of their time (this rate was based on the typical MTurk wage rate). To induce a real sense of having committed a transgression, the participants were asked to recall an event in their life in which they behaved unethically and had violated an important moral principle. To
prevent participants from selectively recalling events that were not truly unethical because of self-presentation motivations, they were assured that they did not need to write down their recollection, nor did they need to justify their transgression. Instead, participants were told to visualize the entire event in their mind and to consider detailed aspects of it, such as where and when it had taken place and how they felt after committing the misdeed. After receiving these instructions, participants answered several filler questions, such as whether or not they had seen any particular colors while visualizing the immoral event, what season the event occurred in, and whether or not the event involved other people (see Appendix 2).

After answering the filler questions, participants were then shown the same information about the Leukemia and Lymphoma Society (LLS) as in Experiment 1, and were told that the experimenters had a request to make, which was unrelated to the current study. Half of the participants were asked if they would be willing to donate $0.10 to support the charity; the other half were asked if they would be willing to spend 1 additional minute to help the charity by answering some questions. Although participants may have had different inherent valuations of money and time, the values of $0.10 and 1 minute were chosen because they were close to equivalent in this situation, in which all participants began the experiment with the explicit knowledge that the next 3 minutes of their time was worth $0.30. It is worth noting that, while these values of money and time may be objectively small, individuals’ subjective evaluation and experience of money and time do depend on the context. At that particular instant, $0.10 was worth a third of the participants’ total payment, and answering an additional minute’s worth of questions added on 33% more time to the original experiment. For MTurk workers who are accustomed to counting in minutes and cents, the decision to give away $0.10 or 1 minute is in all likelihood not insignificant.
Those in the money condition were informed that the $0.10 would be deducted from their payment if they agreed to donate. Those in the time condition were given a set of questions that would take an additional (unpaid) minute to complete if they agreed to volunteer. These filler questions included items such as “How familiar are you with the Leukemia and Lymphoma Society?” and “What words do you associate with the LLS?” If participants declined to volunteer their time, they were able to skip these questions and proceed to the next section.

Subsequently, all participants were told to think back to the unethical behaviour they had visualized at the beginning of the study and to report how guilty they felt about the behaviour, how immoral it was, and how harmful it was (1 = not at all, 9 = very much). Scores for these three judgments were averaged to form a single “feeling bad” score (α = .86).

Because participants could recall any past transgression at their own discretion, I sought to ensure that the transgression they recalled had not already been resolved. If individuals had already addressed the transgression by accepting or justifying their past immoral behaviour, they would presumably feel less bad about it; thus, further compensation might not affect their feelings toward that transgression. Participants indicated the extent to which their transgression was resolved using a 9-point scale (“In your opinion, had this event been resolved?” 1 = No, the event was not resolved, 9 = Yes, the event was resolved). In addition, because this experiment was conducted online, there was no assurance that participants took time to recall and visualize the immoral behaviour, especially since they were not required to write down the recalled event; hence, I requested that participants report the extent to which they felt involved in the recall task (“How involved were you in visualizing this unethical event?” 1 = not involved, 9 = very involved).
Results and Discussion

Twenty-four out of 70 participants declined to donate or volunteer. The proportion of participants who agreed to help did not significantly differ between the money and time conditions, $\chi^2(1, N = 70) = 0.68, p = .41$. That is, participants in the money condition (62%) were as likely to agree to help the LLS as participants in the time condition (71%), which suggests that participants’ valuations of $0.10 were equivalent to their valuations of 1 minute and that participants were equally likely to accept (or reject) either appeal for money or time.

According to my hypothesis, compensating with money better alleviates negative feelings about past transgressions, compared with compensating with time. This effect depends on participants actively deciding to give to the charity. If participants chose not to compensate, then being given the option to donate money or volunteer time should have had no effect on their subsequent judgments of past transgressions. Indeed, among the participants who chose not to compensate, having the option to donate money ($M = 6.69, SD = 1.90$) or volunteer time ($M = 6.41, SD = 1.92$) did not affect how they felt about their past transgression, $F(1, 20) = 0.20, p = .66$. These participants were removed from subsequent analyses.

Among the participants who did choose to contribute to the charity, participants who donated their money reported feeling less bad about their past transgression ($M = 6.78, SD = 1.82$) compared with those who volunteered their time ($M = 7.24, SD = 1.76$), $F(1, 42) = 4.12, p = .05$, after controlling for the degree to which participants felt the transgression was resolved and felt involved in the recall task. These two additional variables were included as covariates: The degree to which the transgression was resolved, $F(1, 42) = 8.88, p = .06$, and the degree of involvement in the recall task, $F(1, 42) = 13.97, p < .01$, both influenced how bad participants felt about their past transgression.
It is worth noting that those who chose not to donate/volunteer reported feeling less bad compared with the participants who chose to contribute to the LLS. It is unlikely that giving money or time led individuals to feel worse about their transgression. More likely, the participants who chose not to give recalled less severe transgressions and/or felt less guilty about their transgressions to begin with. Some people are chronically less guilt-prone than others (Tangney, Burggraf, and Wagner 1995); in other words, they are less likely to experience guilt following a transgression. Hence, this group of individuals would feel less motivated to engage in compensatory behaviour for their transgressions.

In both Experiment 1 and Experiment 2, participants who donated money felt less bad about their past transgression compared with participants who volunteered their time. Arguably, university students may value their time more than MTurk participants and MTurk participants may value their money more than university students. However, both experiments yielded the same pattern of results, suggesting that the effect of compensating with money persisted regardless of individuals’ specific valuations of money and time. The contrasting effects of the type of compensation on feelings of guilt do not result from individuals valuing their money more than their time. Indeed, irrespective of the worth that individuals place on their own money, giving money—even a nominal amount—allows individuals to accrue positive moral credit. As was in the case of Experiment 1, because the charitable cause is likely to be unrelated to the (recalled) transgression, established credentials from giving time cannot be transferred between the two events.

In addition, actively donating money and volunteering time yielded the same outcome as expressing willingness to give money or time (without actually doing so), which indicates that simply thinking about giving money to a charitable cause is sufficient for individuals to accrue moral credits to apply to their past transgressions.
EXPERIMENT 3

The purpose of Experiment 3 was to demonstrate that giving money and giving time have different meanings to individuals beyond their specific amount and value. People tend not to think of the economic value of their time (e.g., Okada and Hoch 2004; Soman 2001), unless they are explicitly prompted to do so (e.g., DeVoe and Pfeffer 2007; DeVoe and House 2012). If individuals’ guilt had been reduced because their money was more valuable to them than their time, then making individuals aware of how much money their time is worth should attenuate the effect of giving money versus time on guilt-reduction. However, if giving money and giving time indeed have different meanings to individuals (e.g. one awards credits and the other establishes credentials), then whether or not time has monetary value should not affect transgression-related guilt. In addition, I also attempted to rule out the explanation that giving money may be perceived to be more helpful to charitable organization and is thus a more valued resource, or that money is more painful to give up compared to time.

Since Experiment 3 involved student participants who received course credit rather than a specific wage rate for their participation, the dollar and hour amounts that they were asked to donate and volunteer, respectively, were determined on the basis of results from a pretest. In the pretest, undergraduate students (N = 23; mean age = 19.22 years; 65% female) reported the amount of money they believed was equivalent to x hours of time, specifically in a charitable giving context (example item: “To you, volunteering for 3 hours is equal to donating how much money?”) and the amount of time they believed was equivalent to $x (example item: “To you, donating $10 is equal to volunteering how many hours?”; see Appendix 3). The average “wage rate” across all the responses was $12.08/hour—that is, volunteering for 1 hour was equivalent to donating $12.08 (SD = 8.30). While the students’ responses were quite varied in the amount
of money they equated to time (and vice versa), the average rate of $12.08/hour is not an unreasonable estimate as it is very close to the province’s minimum wage and the university’s student work-study program wage ($11/hour at the time of the experiment).

To ensure that students did not perceive their time to be scarcer than their money, or vice versa, I asked them to report how much spare time and spare money they felt they had (1 = not much, 9 = quite a bit). Indeed, participants did not report any differences between the scarcity of their time ($M = 4.00, SD = 2.39$) and their money ($M = 4.09, SD = 2.28$), $t(22) = 1.22, p = .90$, which ensured that the results of the experiment would not be driven by the perceived scarcity or value of money. In this experiment, 1 hour and $12 (rounded down from $12.08) were treated as equivalent amounts.

**Design and Procedure**

Undergraduate students ($N = 80$; mean age = 20.35 years; 53% female) were recruited to participate in a laboratory study in exchange for course credit and were randomly assigned to the money condition, the time condition or the time-as-money condition. As in Experiment 2, participants first recalled and visualized an event in their life in which they had violated an important principle. Again, they did not have to report or justify the unethical event and they answered a series of filler questions related to the event, including questions about what colours they saw during the visualization and in which season the event occurred.

In an ostensibly separate study, a third of the participants (time-as-money condition) answered three questions (adapted from DeVoe and House, 2012) about their most accurate expectation for their employment during the upcoming summer months, including: 1) how many hours per week they expected to work on average; 2) how many weeks in total they expected to work; and 3) how much they expected to earn over the course of the summer (see Appendix 4).
Based on these expectations, participants calculated an hourly wage rate for their summer job. Actively calculating the wage rate for an hour’s worth of work encourages participants to think about the monetary value of their time (DeVoe and Pfeffer 2007, 2010). The remaining two-thirds of participants did not complete this task; these participants were randomly assigned to the money condition and time condition.

Using a different charitable organization and charitable cause from the first two experiments, participants read a description of the mission statement of a local food bank, followed by an appeal for help. Participants in the money condition were asked if they would be willing to donate $12 to the food bank. Participants in both the time and time-as-money conditions were asked how willing they would be to volunteer one hour for the food bank. Participants all responded on a 9-point scale (1= No, I am not willing, 9 = Yes, I am willing; see Appendix 5).

Following a short filler task that required participants to think back to the unethical behaviour they had visualized at the beginning of the study (e.g., “What colours did you see when visualizing the event?”), they were asked to report how guilty they felt about the behaviour, how immoral it was, and how harmful it was (1= not at all, 9 = very much). Scores for these three judgments about the past immoral behaviour (guilty, immoral, harmful) were averaged to form a single “feeling bad” score (α = .84).

Participants were asked to think about their decision to give to the food bank and to evaluate how helpful their contribution would be to the charity and how painful they think it would be to give money (time) to the charity (1= not at all, 9 = very much). And finally, as a check for potential demand effects, participants were asked to report what they thought the purpose of the study was.
Results and Discussion

Twelve participants were excluded for indicating that they were not at all willing to help at the charitable event. A one-way analysis of variance (ANOVA) revealed that the type of compensation had an effect on participants’ judgments of their past immoral behaviour, $F(2, 65) = 3.26, p = .05$ (see Figure 2). Planned contrasts indicated that participants who donated money to the charitable cause felt less bad about their past transgression ($M = 5.26, SD = 2.07$) compared to those who volunteered time to the cause ($M = 6.24, SD = 1.74, t(65) = 1.87, p = .06$), consistent with the previous findings. Participants in the money condition also felt less bad compared to those in the time-as-money condition ($M = 6.60, SD = 1.42, t(65) = 2.46, p = .02$). Placing a monetary value on time did not alter the way participants perceived the meaning of giving time, as those in the time-as-money condition did not feel any less guilty than those in the time condition, $t(65) = .70, p = .49$.

An additional ANOVA revealed that the perceived helpfulness of the contribution to the charity differed between conditions, $F(2, 65) = 8.08, p < .01$. Planned contrasts show that participants who gave time rated their contribution as more helpful for the charity ($M_{\text{time}} = 6.27, SD = 1.51; M_{\text{time-as-money}} = 5.71, SD = 1.59$) compared with those who gave money ($M = 4.43, SD = 1.66), $t(65) = 3.76, p < .01$. Perceived pain from donating/volunteering did not differ between conditions ($M_{\text{time}} = 2.42, SD = 1.79; M_{\text{time-as-money}} = 2.95, SD = 1.91; M_{\text{money}} = 2.57, SD = 1.57$), $F < 1$, NS.

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3 The three conditions differed in terms of willingness to help at the charitable event, $F(2, 65) = 4.64, p = .01$. Participants in the time-as-money condition ($M = 7.57, SD = 1.87$) and participants in the time condition ($M = 6.85, SD = 2.03$) both indicated higher willingness than participants in the money condition ($M = 5.76, SD = 1.87$). When level of willingness is included as a covariate in the ANOVA, the type of compensation still had a significant effect on judgments of immoral behaviour, $F(2, 64) = 4.00, p = .02$; level of willingness was not a significant predictor of negative evaluations of the transgression, $F(1, 64) = 1.50, p = .23$. 
These results suggest that even when the exact value that is being compensated is equivalent, the type of compensation continues to have an effect on transgression-related guilt. The difference between giving money and giving time on guilt-reduction persists even when individuals are consciously made aware of the monetary value of their time, which indicates that giving time itself has a particular meaning to individuals (i.e., signaling personal identity and establishing credentials), above and beyond the amount and dollar value of time. These results, at first glance, may seem contradictory to the findings of DeVoe and Pfeffer (2010) in which considering time in terms of money and wage rates decreased subsequent intentions to volunteer. However, it is important to consider the motivation for volunteering: In DeVoe and Pfeffer’s work, participants who thought about time-as-money decided against volunteering because it was seen as an activity involves effort but provides no direct compensation for the effort—an act of altruism with no personal gain. In the present experiment, participants made their decisions regarding volunteering based on the desire to address the wrong that they had committed. In this case, the opportunity to volunteer is not merely an opportunity to be altruistic. Since participants had already made the decision to volunteer, the subsequent judgment on the initial transgression arose from the meaning participants ascribed to the act of giving (money vs. time).

The effect of the type of compensation on the evaluation of the transgression cannot be explained by how helpful the act of compensation is. In fact, although individuals who gave money experienced lower levels of transgression-related guilt, those who gave time perceived that their contribution would be of more use to charities. In addition, money was not perceived to be more painful to give up for a charitable cause compared to time, thus ruling out the explanation that the difference in transgression-related guilt following compensation is due to pain.
Although the different tasks within the experiment were framed as entirely separate studies, there is still concern that participants may detect the true purpose of the experiment. The hypothesis-probing question at the end of the experiment assuaged this concern. Most participants assumed that the experiment was about “behaviour” or “decision making”. Some of the keener participants made guesses along the lines of, “analyze[ing] a person’s morality”. No participant made the connection that the type of compensation (money vs. time) could affect evaluations of the initial transgression.

Experiments 1 through 3 demonstrate that the difference between giving money and giving time persist, irrespective of the type of transgression and the personal valuation of these two resources. This begs the question of whether or not compensating with time has any effect at all on transgression-related guilt; I test this in the following experiment.
EXPERIMENT 4

Experiment 4 served to demonstrate that the difference in guilt following compensating with money versus time is driven primarily by money. Prior research has shown that those who commit a transgression are more willing to donate money and volunteer time as a way to repair their damaged moral self-concept (e.g., Estrada-Hollenbeck and Heatherton 2010; Jordan et al. 2011; Sachdeva et al. 2009). Given these findings, one might argue that any form of compensation, compared with no compensation, should reduce negative evaluations of a transgression. However, because the moral credentials established by giving time cannot be transferred to an unrelated transgression, compensating with time might only be marginally more effective in reducing transgression-related guilt than not compensating at all.

The secondary purpose of Experiment 4 was to replicate the effect of compensating with money using yet another form of transgression to ensure the generalizability of this effect. In the previous experiments, the recalled transgression was completely unknown and may have occurred anywhere from several days to several years in the past. In Experiment 4, I again used a real transgression, but in a more controlled manner, such that all participants would consider the same transgression, and I also ensured that the transgression would feel more immediate to the participants rather than being an event from the (potentially distant) past. Indeed, some research suggests that recalling recent (vs. distant) past moral or immoral behaviours activate moral regulation concerns and are thus more likely to lead to compensatory behaviours (Conway and Peetz 2012).

Design and Procedure
Undergraduate students ($N = 108; \text{mean age} = 20.94$ years; 47% females) participated in a laboratory study in exchange for course credit. They were randomly assigned to one of three conditions: compensating with money, compensating with time, or no compensation. The participants began the experiment by filling out a survey about their eating habits, which included a series of filler items including their frequency of consuming fruits and vegetables, their enjoyment of consuming dairy products, and so on (see Appendix 5). The two key questions from the survey asked participants whether or not they enjoyed consuming chicken and eggs. Subsequently, participants were given a news article to read about local poultry-farming practices, which was ostensibly meant to teach them about becoming more socially responsible consumers. The article was explicit in emphasizing the unhealthy and inhumane conditions that chickens live in. Because participants had first been reminded that they themselves consumed chickens, they would thus be induced to feel guilty about contributing to the poor treatment of chickens. Although the guilt would not be long lasting, it should feel immediate, and participants would be motivated to reduce their guilt by compensating if the opportunity arose.

Participants in the two compensation conditions then read a passage about an upcoming tree-planting fundraising event in their city and an appeal for help at the weekend-long event. Participants indicated on a slider bar ($0 = \text{indifferent}, 100 = \text{strongly agree}$) the extent to which they agreed with the statement, “Right now, I commit to donating [volunteering]”. Participants in the no-compensation condition did not read about any fundraising events and instead completed an irrelevant task in which they viewed a series of random Latin phrases and counted the number of times the letter $e$ occurred (see Appendix 5).

All participants were then asked to report how guilty they felt for eating chicken and eggs, how wrong it was, and how harmful it was ($1 = \text{not at all}, 9 = \text{very much}$). Scores for these
three judgments about eating chickens and eggs were averaged to form a single “feeling bad” score ($\alpha = .79$).

Results and Discussion

Six participants who identified themselves as vegetarian or vegan were excluded from subsequent analyses. Three additional participants were excluded for indicating that they were not at all willing to help at the charitable event. Among the remaining participants, there was no difference in their level of willingness to donate money ($M = 50.91$, $SD = 26.85$) or volunteer time ($M = 49.83$, $SD = 27.73$), $F < 1$, NS. That is, participants expressed equal levels of willingness to commit to donating money and to volunteering time.

An ANOVA revealed an overall significant difference in the evaluation of the transgression amongst the three conditions, $F(2, 96) = 4.99$, $p = .01$. Subsequent planned-contrasts revealed that participants who donated money ($M = 3.02$, $SD = 1.61$) felt less bad about consuming chickens and/or eggs than did those who volunteered time ($M = 3.90$, $SD = 2.10$), $t(96) = 2.03$, $p = .045$, or those who were not given the opportunity to compensate ($M = 4.44$, $SD = 1.71$), $t(96) = 3.10$, $p = .003$. Participants who volunteered time felt as bad about consuming chickens and/or eggs as did those who did not compensate, $t(96) = 1.16$, $p = .25$. In other words, compensating with time did not reduce negative evaluations of the transgression (i.e., contributing to the poor treatment of chickens) relative to the baseline evaluation of the transgression (see Figure 2).

These results provide supporting evidence that compensating with money allowed participants to accrue moral credits to pay off the moral debt from the transgression and thus feel less guilty about their chicken and egg consumption. In addition, these results suggest that establishing moral credentials through giving time (e.g., being someone who cares about
tree planting) cannot be transferred to past transgressions (e.g., contributing to the poor
treatment of chickens) that are unrelated to the newly established credentials. Interestingly,
those in the time condition did not feel any differently about their transgression compared with
those in the control condition, despite the fact that they did indeed engage in a prosocial cause.
It is entirely possible that engaging in a morally good behaviour allows people to feel good and
to feel a boost in their self-worth (e.g., Khan and Dhar 2006); however, these positive feelings
may not transfer over to the specific transgression because the moral credentials were
established in a domain unrelated to the transgression.

I note that the scores for guilt and harm were much lower in Experiment 4 than in the
previous experiments. This is presumably because consuming chickens and/or eggs is an
ongoing behaviour, and participants could justify to themselves why they engaged in the
behaviour despite having learned about gruesome poultry farming practices. The transgression-
related guilt induced in this experiment, while real and immediate, was likely to be weaker than
in Experiments 2 and 3, in which participants recalled an event where they violated an important
moral principle. However, despite the overall low level of guilt, compensating with money
reduced guilt and other negative evaluations of the transgressions even further.

I posit that moral credentials cannot be applied to past, unrelated transgressions because
being moral in one particular domain cannot justify transgressions in another domain. For
instance, demonstrating that one cares about environmental issues, such as by spending time at a
tree-planting event, cannot justify one’s meat consumption and contribution to cruelty toward
farm animals. Hence, compensating with time does not reduce transgression-related guilt.
However, if one can establish credentials in a domain related to the transgression and thereby
connect the act of compensation with the transgression, then compensating with time will be
able to reduce transgression-related guilt. For example, volunteering time for a tree-planting
event and establishing oneself as an environmentally conscious person should allow one to feel
less guilty about neglecting to recycle in the past. Individuals can forgive their past
transgression because they have established their credentials as someone who is moral in the
same domain. However, because moral credits can be applied to “pay off” moral debt
irrespective of its origin, the effect of compensating with money should not be affected by
whether or not the domain of the transgression and compensation match. I tested this prediction
in the following experiment.
EXPERIMENT 5a

In order to cleanly match the domain of the transgression with that of the compensation, I used a hypothetical scenario to induce the transgression to ensure that all participants experienced the same transgression. Participants also all read about the same charitable organization—the only difference was the cause that the charity championed. The domain of the compensation was manipulated as follows: All participants were asked to help a charity by giving either money or time, but the cause of the charity differed by condition, such that it matched or did not match the domain of the transgression. I hypothesized that when the domain of the compensation did not match the domain of the transgression, the results found in the previous experiments would be replicated, such that participants who compensated with money would feel less bad about their transgression than participants who compensated with time; however, when the domain of the compensation matched the domain of the transgression, the difference between compensating with money versus time would be attenuated because moral credentials become relevant when the domains match.

Design and Procedure

Experiment 5 used a 2 (domain: same vs. different) × 2 (compensation: time vs. money) between-subjects design. The design of this experiment was adapted from the pilot test. Undergraduate commerce students (N = 106; mean age = 20.32 years; 65% females) read the transgression scenario written from a second-person point of view, and they were requested to imagine the situation as if they were experiencing it themselves. The participants were instructed to imagine that they needed to form a group for a class project and that when a
classmate in a wheelchair requested to join the group, they decided to reject the student even though he was a good student, because they were uncomfortable with his disability (see Appendix 6).

Subsequently, all participants were told that Transport Canada was launching several new initiatives and was gauging interest from university students. Participants in the different-domain condition were told that an upcoming event held by Transport Canada was about raising awareness for developing environmentally sustainable transportation (see Appendix 6). Participants in the same-domain condition were told that the upcoming event was meant to raise awareness about developing accessible transportation for disabled people. The type of domain was crossed with the type of compensation, such that half of the participants were asked to indicate, using a slider bar (0 = indifferent, 100 = strongly agree), the extent to which they agreed with the statement, “Right now, I commit to donating [volunteering]”. Participants then recalled the scenario about rejecting their disabled classmate. They reported how guilty they felt about rejecting their classmate, how immoral it was, and how wrong it was (1 = not at all, 9 = very much). Scores for these three judgments about behaving in a discriminatory manner were averaged to form a single “feeling bad” score (α = .81).

Results and Discussion

Four participants were excluded for indicating that they were not at all willing to help at the charitable event. Among the remaining participants, there was no difference in participants’ willingness to give to the charitable event across the four conditions ($M_{\text{same domain/money}} = 45.48$, $M_{\text{same domain/time}} = 48.74$, $M_{\text{different domain/money}} = 41.92$, $M_{\text{different domain/time}} = 50.82$; $F < 1$, NS).

An ANOVA revealed a main effect of domain, such that participants in the same-domain conditions felt less bad about the transgression ($M = 7.28$, SD = 1.69) than did those in the
different-domain conditions ($M = 7.93$, $SD = 1.22$), $F(1, 98) = 5.57, p = .02$. More importantly, this main effect was qualified by a 2 (domain: same vs. different) $\times$ 2 (compensation: time vs. money) interaction, $F(1, 98) = 4.68, p = .03$ (see Figure 3). Subsequent contrasts revealed that when the domain was different, participants who donated money ($M = 7.54$, $SD = 1.45$) felt less bad about the transgression than did those who volunteered time ($M = 8.39$, $SD = 0.67$), $t(98) = 2.01, p = .05$. When the domain was the same, participants who donated money ($M = 7.48$, $SD = 1.57$) and those who volunteered time ($M = 7.07$, $SD = 1.81$) felt equally bad about the transgression, $t(98) = 1.02, p = .31$.

These results provide further support for the hypothesis that compensating with money in a domain unrelated to the transgression allows individuals to feel less guilty about their immoral behaviour, whereas compensating with time does not. When the domain of the transgression and compensation match, however, the difference between compensating with money versus time is attenuated, such that compensating with time can also reduce transgression-related guilt. Critically, these results lend support to my assertion that compensating with money allows transgressors to gain moral credits that can be applied to any form of moral “debt”, whether the domains match or do not match. When the domains do match, compensating with time can also have a significant effect on transgression-related guilt, suggesting that giving time leads to establishing credentials in that particular domain, which then allows the individual to experience less guilt over the transgression.
EXPERIMENT 5b

Throughout this dissertation, I argued that giving money can directly compensate for the transgression because moral credits can be applied to any transgression within the overall moral bank account while giving time establishes moral credentials that are closely linked to the charitable cause and cannot be transferred to unrelated transgressions. Across the previous five experiments, I used various methods to ensure that individuals felt as if they themselves had transgressed and compensated. However, one significant limitation of this methodology, especially when guilt and threats to the self-concept are involved, is that individuals are likely to engage in self-defense mechanisms and self-justification if asked to report their motivations. For example, individuals may want to believe that they are donating out of altruism rather than donating out of guilt. To indirectly examine whether individuals attribute different motivations to giving money versus giving time, I conducted Experiment 5b to ask participants to evaluate other people’s behaviour and motivations. Presumably, individuals would be more willing to honestly evaluate the motivations of others.

In this experiment, I used an indirect method to examine whether or not individuals perceive that the act of compensation and act of transgression are more closely related when the method of compensation is giving money (vs. giving time). If the method of compensation is seen as earning moral credits for the individual, then there would be a greater perceived link between the act of transgression and the act of compensation. On the other hand, if the method of compensation merely establishes one’s credentials without adding moral credits, then there would be less of a perceived link between the act of transgression and the act of compensation. In other words, if the compensatory behaviour is perceived to be related to the transgression, then the compensatory behaviour can directly address the transgression. However, if the
compensatory behaviour is perceived to be unrelated, then it would not make sense to apply any morally good feelings arising from the compensatory action to address the transgression. There is a distinct advantage to putting the participants in the role of the observer rather than asking them to imagine themselves in the role of the actor. As mentioned previously, when threats to the self-concept are involved, individuals are likely to engage in self-defense mechanisms; hence, they are less likely to report that their motivation to compensate is related to their initial transgression. Being an observer removes the threat to the self-concept and would allow individuals to more freely admit to seeing a relationship between the act of compensation and initial transgression.

Design and Procedure

Experiment 5b was conducted with one hundred participants from an online panel (mean age = 39.2 years; 55% female, Amazon Mechanical Turk (MTurk). The procedure was similar to that of Experiment 5a. However, rather than imagining themselves enacting the transgression, participants read two scenarios about a fictitious student named Alex. In the first scenario, Alex committed a transgression against a disabled student, and in the second scenario, Alex was described as supporting a charity (see Appendix 7). The first scenario (the transgression) was the same across all conditions: Alex rejected a disabled student from her group. The second scenario differed across the four conditions. Alex was described as either donating (giving money) or volunteering (giving time) for a charitable event held by the Department of Transportation. This event was either raising awareness for sustainable transportation (unrelated to the transgression) or raising awareness for accessible transportation (related to the transgression). The method of compensation (money vs. time) was fully crossed with the domain of the compensation (sustainable transportation vs. accessible transportation). After
reading these two scenarios, participants reported to what extent they thought Alex chose to contribute to the charitable event due to feelings of guilt (1 = not at all, 9 = very much). Participants were also asked to indicate how closely related they thought the act of compensation was to the initial transgression. They were shown a series of pairs of circles where one circle represented the transgression and the other circle represented the compensation. Across nine images, the pairs of circles were drawn closer and closer together, such that they completely overlapped in the last image (see Appendix 7). The closeness of the circles represented how connected the two events were.

**Results and Discussion**

An ANOVA revealed two main effects for ascribing guilt to Alex’s decision to compensate: First, participants assumed Alex chose to give to the charity out of guilt when the domain of the compensation matched (M = 6.89, SD = 2.19) that of the transgression compared with when the domain did not match (M = 4.79, SD = 2.59), $F(1, 96) = 20.15, p < .01$. That is, participants assumed Alex most likely contributed to the accessibility-related event because she felt guilty about rejecting the disabled student from her group. Second, participants were more likely to ascribe guilt to Alex’s motivation to give to the charity when she compensated with money (M = 6.57, SD = 2.56) than when she compensated with time (M = 5.43, SD = 2.49), $F(1, 96) = 6.70, p = .01$. 

Further contrasts showed that, when the two events were unrelated, Alex’s motivation to donate money to the sustainability-related cause was more likely to be attributed to transgression-related guilt (M = 5.67, SD = 2.75) than when she volunteered time (M = 3.95, SD = 2.17), $F(1, 41) = 5.17, p = .03$. When the two events were related, Alex’s motivation to donate money to the accessibility-related cause was no more likely to be attributed to guilt (M = 7.25,
SD = 2.22) than when she volunteered time ($M = 6.55, SD = 2.13), F(1, 55) = 1.47, p = .23 (see Figure 4). These results suggest that the motivation for giving money (vs. time) is more likely to arise from guilt; hence, it may be the case that giving money is more able to reduce negative evaluations of the transgression because giving money directly addresses transgression-related guilt. Additionally, these results provide support for the argument that giving time signifies a connection between one’s identity and the charitable cause, and thus unrelated events are irrelevant to the decision to give time. In other words, the decision to give time should *not* be due to guilt from unrelated transgressions.

On the circles task, when the transgression and the compensation were related (rejecting a disabled student and supporting accessible transportation), participants rated the two events as more closely connected ($M = 6.25, SD = 2.46$) than when the transgression and compensation were not related (rejecting a disabled student and supporting sustainable transportation; $M = 4.19, SD = 2.68$), $F(1, 96) = 17.10, p < .01$. When the transgression and the compensation were *unrelated*, participants rated the two events as more closely connected when Alex donated money ($M = 5.14, SD = 2.48$) than when she volunteered time ($M = 3.29, SD = 2.60$), $F(1, 41) = 5.82, p = .02$. When the transgression and the compensation were *related*, donating money also led to higher perceptions of connection between the two events ($M = 6.93, SD = 2.29$) compared with volunteering time ($M = 5.59, SD = 2.47$), $F(1, 55) = 4.51, p = .04$. However, it is important to note that the perception of connection significantly increased for time when the two events were in the same domain, $F(1, 49) = 10.47, p < .01$. These results suggest that individuals are more likely to see the connection between the act of compensation and the transgression when money is used as the method of compensation. This is consistent with the idea that giving money elicits the moral credits route of moral regulation: When the moral bank account has debits (from immoral behaviours), any gains in credits (from moral behaviours) should be able
to pay off the debits. On the other hand, the obvious matching of the compensation with the transgression is required for individuals to see the connection between compensating with time and the initial transgression. This is consistent with the idea that giving time elicits the moral credentials route: Giving time allows people to establish credentials within the specific domain of the charitable cause. Thus, unless the cause is related to the transgression, individuals cannot really “see” the connection between the transgression and the compensation, and hence cannot use the credentials to excuse the transgression.

These third-party observer evaluations provide deeper insight into motivations that would be difficult to assess otherwise, from a first-person actor perspective, and offer support for the hypothesis that giving money and giving time evoke different mindsets in individuals.
GENERAL DISCUSSION

It has been assumed in the moral regulation literature that, as methods of compensating for transgressions, giving money and giving time are interchangeable resources. However, my results demonstrate that the feelings associated with giving money and giving time in charitable contexts are not the same. I draw upon the moral credits and credentials framework to argue that giving money makes individuals feel as if they are accruing moral credits that they can apply to past moral debts caused by transgressions irrespective of the relationship between the transgression and the domain of the charitable cause; by contrast, giving time makes individuals feel as if they have established moral credentials in a specific domain.

Across six experiments, I found that compensating with money better allowed individuals to forgive themselves for their past transgressions in any domain, whereas compensating with time reduced transgression-related guilt only when the connection between the compensation and the transgression was made obvious. In Experiment 1, I demonstrated that expressing willingness to donate money reduces guilt over recalled past transgressions compared with expressing willingness to volunteer time. I replicated this finding in Experiment 2, in which participants actually gave their money or time. In addition, the results of these two experiments suggest that the effects are not influenced by different valuations of money and time, given that students in Experiment 1 likely valued their time more than the MTurk participants in Experiment 2. Even when individuals were cognizant of the exact dollar value of their time, the effect of giving money (vs. time) on guilt-reduction persisted (Experiment 3), suggesting that giving money and giving time have different meanings to individuals beyond the specific amount and value. In Experiment 4, I found that the level of guilt participants experienced after expressing willingness to volunteer time did not significantly differ from that
felt by a control group who transgressed but were not given the opportunity to compensate. I find evidence for a moderator in Experiment 5a, in which giving time is also able to reduce guilt: When the compensation and the transgression were clearly related, compensating with time reduced the guilt and other negative evaluations associated with the transgression, consistent with the moral credentials model. In Experiment 5b, I showed that individuals were more likely to assume that transgressors who donated money did so out of guilt compared with transgressors who volunteered time. And additionally, individuals assumed that acts of compensation that involved money (vs. time) were more connected to the transgression.

Across these experiments, merely thinking about compensating with money was sufficient in reducing transgression-related guilt, without actually giving up money. This is consistent with recent research from the moral licensing literature, which reports that thinking about engaging in a future moral behaviour is sufficient to induce subsequent licensing behaviour (Cascio and Plant 2015). I argue that a similar effect holds for compensatory behaviour: Agreeing to engage in future or even hypothetical compensatory behaviours can allow individuals to gain moral credits or establish moral credentials to apply to past transgressions. It is worth noting that the transgressions I examine involve some level of ambiguity as to how “bad” they are. Even when participants are asked to recall their own transgressions, it is likely that they are not thinking of situations where they behaved in an unambiguously immoral way—in fact, it is probable that participants can justify why they behaved in the manner they did because people are motivated to see the best in themselves. If the transgressions were decidedly unethical, the effect of giving money (vs. time) on the evaluation of the transgression would likely be weakened (though directional patterns of effects may persist). If the transgression is bad enough that it becomes difficult to justify, then it is unlikely that subsequent compensation, even with money, can allow individuals to re-evaluate
the transgression and assuage their guilty feelings. Future research would be needed to confirm this prediction.

Several alternative explanations for the difference in transgression-related guilt following the two different forms of compensation can be ruled out. The difference cannot be attributed to the transgressor’s own valuation of money and time, or even the perceived value that charities place on money or time. As demonstrated in Experiment 3, individuals actually perceive giving time to be more helpful to charities, compared with giving money. Results from the same experiment also demonstrated that the reduction in guilt could not be attributed to one resource being more painful to give up than the other, and the pretest from this experiment showed that these participants did not view money as more scarce than time or vice versa. While there may be individual differences in valuation of money and time, these differences are likely reflected in the data as noise and washed out by random assignment. The conversion between dollars to amount of credits and hours to level of credentials also likely differs between individuals. The manner in which the compensation was presented varied across all five experiments, yet the difference between compensating with money versus time persisted. Thus, irrespective of each individual’s conversion rate, giving any amount of money should be sufficient in allowing individuals to accrue some credits, and giving any amount of time should be sufficient in allowing individuals to establish some level of credentials. It is worth noting that, while the amount of money versus time cannot account for the results found across the experiments, amount of money/time may influence transgression-related guilt within each category of compensation. That is, people who donate more money may experience less guilt compared with people who donate less money. The result may not be the same for giving time because volunteering more time may suggest a stronger connection to the charitable cause in question; thus, those who volunteer more time for a charity may be even less able to apply the
good feelings from the compensatory behaviour to an unrelated past transgression. Further research is needed to confirm these speculations.

One potential explanation for the domain-specific effect from Experiment 5a, which arises from the credits and credentials model, is that giving time in the same domain as the transgression may allow one to accrue moral credits rather than establish moral credentials. Referring back to the results of Experiment 5b, the connection between the act of compensation and the transgression becomes more apparent when the domains are the same. Because the connection becomes more transparent to the individual, trying to establish credentials in the same domain as the transgression may feel somewhat hypocritical. Instead, concepts such as quid pro quo may become more salient in such situations, and as a result, the context (i.e., when the domains are the same) may induce individuals to perceive the act of giving time to be similar to giving money. In both cases, participants would gain moral credits that can “pay off” their past debts. The current set of studies does not provide sufficient information to support or refute this prediction. Further research is needed to examine the direct effect of the type of compensation (giving money vs. time) on the type of moral route (accruing credits vs. establishing credentials).

This research is the first to examine the moral credits and credentials framework in the context of moral compensation. My results differ slightly from the moral credits model in the moral licensing context. Effron and Monin (2010) argued that accruing moral credits provides individuals with license to engage in future misdeeds but does not alter their perception of how “bad” the misdeeds are. I found that individuals who applied their moral credits to their own past transgressions were able to change their perception of the transgression (i.e., to view it as more permissible)—however, there are two key differences between my research and Effron and Monin’s (2010). In their studies, participants observed the good and bad behaviors of
others. In my studies, participants evaluated their own behaviors, and individuals are self-serving and willing to rationalize and justify their own behaviors (e.g., Bandura et al. 1996; Epley and Caruso 2004). Additionally, if individuals have already engaged in the bad behavior, subsequent compensation will give them the opportunity to reevaluate and re-construe the past transgression and repair their moral image. This is not necessary for future transgressions in licensing contexts, because the moral account is “in the black” and the individual’s moral image is intact. My results demonstrate that there are indeed two routes for individuals to compensate for moral transgressions: Transgressors can earn moral credits to balance out their moral debt, or they can establish moral credentials to identify themselves as a moral person—at least in a particular domain. Very few papers have empirically tested the difference between these two routes (Effron and Monin 2010), though others have speculated on the differences (e.g., Blanken, van de Ven, and Zeelenberg 2015; Cascio and Plant 2015). My findings add to this nascent area of research, and offer empirical evidence for these two routes of moral regulation in the context of compensation, which has not been explored until now.

At this point, it is important to address a limitation of the results from the current collection of experiments: These findings cannot conclusively determine whether giving money allows individuals to reflect on the severity of the transgression and reassess it to be not a bad behaviour in the first place, or whether giving money simply “pays off” the debt of the transgression such that individuals feel less guilty about transgressing. In the former case, it may be that individuals are more likely to reconsider the transgression after giving money and justify their behaviour; thus, they evaluate the transgression as less immoral and harmful, and report feeling less guilty. In contrast, for the latter case, it may be that giving money allows individuals to feel as if there is no moral debt—that is, they have “paid off” their bad deed—hence, these individuals have nothing to feel bad about. Although both explanations would lead to
participants reporting lower feelings of guilt, immorality, and harm, the present experiments cannot definitively tease these two potential processes apart. Because the guilt question always precedes the other two items, which assess the subjective “badness” of the transgression, participants are always directed to consider their feelings of guilt before their evaluations of the transgression. Presumably, if participants were first asked to evaluate the “badness” of the transgression without considering how guilty they feel about it, they may report lower levels of “badness” if they are reframing the transgression. Alternatively, they may report unchanged levels of “badness” if giving money was merely acting as a “debt reduction” mechanism because without using guilt as information, the transgression would still be perceived as a bad behaviour. Future experiments that re-order the questions about the transgression may give some insight as to which process (reframing vs. debt reduction) explains the effect of giving money on evaluations of the transgression.

**Future Directions**

Broadly, these overall findings on the type of compensation affecting evaluations of transgressions provide an important contribution to the moral regulation literature. According to the moral compensation perspective, individuals compensate after committing transgressions because they are motivated to ease the negative tension caused by the moral imbalance (e.g., Zhong et al. 2009), and compensations may take on any form as long as the transgressor gives his or her resources (i.e., money or time) for a prosocial cause. Individuals are presumably able to repair their damaged moral self through compensation, but how they feel about their past transgression had not been examined prior to this research. This research is the first to demonstrate that the method of compensation can differentially affect evaluations of past transgressions. This has significant implications for future moral behaviors: If individuals
perceive their transgressions to be less harmful and less immoral after having compensated with money, they may be more inclined to engage in those misdeeds again in the future. I found some preliminary evidence suggesting this possibility in Experiment 3: When participants were asked to report how likely they were to commit the same transgression again in the future, their feelings of guilt and harm were negatively correlated with their intentions to re-transgress, $r(82) = -0.39, p < .001$. And in Experiment 4, the participants’ guilt over eating chickens and eggs was positively correlated with their intention to purchase free-range eggs, $r(99) = 0.49, p < .001$, and thus avoid contributing to inhumane poultry farming practices. These results suggest that even though compensating with money allows individuals to feel better about their transgressions, it might also allow individuals to become more willing to commit the transgressions again in the future. As mentioned in the previous section, compensating with money may allow individuals to feel as if there had been no moral debit incurred (i.e., the transgression had been “paid off”); alternatively, compensating with money may allow individuals to reassess the transgression (i.e., justifying their transgression). Understanding which of these two processes is at play has important implications for predicting the likelihood that individuals would engage in re-transgression. On the one hand, if moral debt is reduced through monetary compensation, then individuals may refrain from re-transgressing because they still perceive the transgression to be a bad behaviour. On the other hand, if individuals are reassessing and justifying the transgression, then they would be more likely to engage in similar transgressions because they no longer perceive the transgression to be immoral. Because of the (scenario-based) nature of the transgression manipulation in Experiment 5, I could not measure participants’ intentions to re-transgress; however, given that time is more of an expression of one’s personal identity compared with money, I predict that the reduced guilt from giving time in a domain that is relevant to the transgression should not lead to an increase in the likelihood
of transgressing again. If the act of compensating with time is indeed an expression of one’s idenity, then recommitting the transgression would be blatantly hypocritical. Further research is needed to explore the effect of compensation on future re-transgressions.

The aforementioned contributions and implications are focused on the individual’s perspective: How individuals can compensate in order to alleviate negative feelings, and how individuals may behave after compensation. The understanding of how individuals construe the use of money and time in charitable contexts also has important implications for organizations that rely on donors and volunteers. Because giving money allows individuals to accrue moral credits that can “pay off” any transgression and alleviate transgression-related guilt, organizations that seek monetary donations could employ guilt-related appeals, drawing individuals’ attention to their role in contributing to the problem. On the other hand, because giving time allows individuals to establish credentials that reflect their personal identity, organizations in need of volunteers could appeal to individuals’ moral identity in a relevant domain. These findings would be relevant to for-profit organizations as well. Consumers are becoming more concerned about the impact of their consumption on societal welfare and the environment, especially with the rise of media coverage on issues such as exploited sweatshop workers and the threat of global climate change. To alleviate consumers’ consumption guilt, retailers could partner with non-profit organizations to launch checkout campaigns (i.e., solicit donations at the checkout register). Guilt from purchasing goods may be alleviated after consumers donate to a charitable cause. For more niche market firms like MEC and Patagonia, whose consumers are already concerned with issues such as sustainability, time-related volunteering events may be more suitable strategies. The opportunity to give time would appeal to these consumers’ personal identity as environmentally conscious citizens, and would be able to affirm their credentials and assuage guilt associated with consumption.
Marketers may be able to leverage these results to encourage consumers to shed their consumption-related guilt and continue to make purchases guilt-free. However, these results have larger implications at the societal level that need to be further explored. The present research examines relatively inconsequential transgressions; however, it is worth noting that money and time are already being employed as methods of compensation at the legal level: Law-breakers are forced to pay fines and/or serve time depending on their transgression. If giving money reduces guilt related to the transgression and allows the transgressor to re-evaluate their transgression, then the chance of recidivism would presumably increase after paying a monetary fine because the transgression no longer seems like a bad behaviour. Without guilt and other negative evaluations present, there is very little deterrent (aside from the chance of being caught and punished) against committing the same transgression again. The converse should hold for giving time (assuming the time is spent in a domain that is unrelated to the transgression) because the transgressor would not be able to re-evaluate their transgression. It is worth examining in future research whether or not recidivism rates differ following monetary fines versus time-related punishments (e.g., community service), as these results would have important legal and societal ramifications.

In the previous sections, I have discussed how individuals’ evaluations of their own transgression will change depending on how they compensate for the transgression. Another important and interesting question arises from the findings of this research—especially given the results of Experiment 5b—which is, how do individuals judge the transgressions of others after observing them engage in compensatory behaviours? This is especially crucial in the marketing context, where firms attempt to project a moral image to consumers following firm transgressions. For example, following the British Petroleum (BP) oil spill in 2010, would consumers perceive the incident as less harmful and immoral if BP highlighted their monetary
donations to various prosocial causes? Or would consumers be more likely to forgive the incident if BP advertised the fact that they dedicate much of their company time to support various charitable initiatives? One possible prediction is that consumers would be more likely to evaluate firm transgressions as less immoral following a monetary donation (vs. time commitment) by the firm because money can “pay off” the debt of the transgression, which would be consistent with the results of the present research. An alternative prediction is that monetary donations would be too blatant of a signal that the firm is trying to distance itself from the transgression and consumers would be less likely to forgive the firm of its past misdeed. Additional research is needed to test these two competing predictions to investigate if the results of the present research based on individuals’ evaluations of their own transgressions would extend to evaluations of others’ transgressions.

In conclusion, the present research demonstrates that giving money and giving time in charitable contexts have different meanings to individuals. Compensating by giving up money or time for a prosocial cause affects the way individuals regard their past transgressions. These results have important implications for individuals’ understanding of how to regulate their moral emotions and behaviors. Absolution, as it turns out, can be achieved by literally paying for one’s sins.
REFERENCES


Figure 1: Negative Evaluations of Transgressions in Experiment 3
Figure 2: Negative Evaluations of Transgressions in Experiment 4

![Graph showing negative evaluations of transgressions in Experiment 4. The x-axis represents different conditions: Money, Time, and Control, while the y-axis represents the level of guilt/harm/wrong. The values are 3.02 for Money, 3.90 for Time, and 4.44 for Control.]
Figure 3: Negative Evaluations of Transgressions in Experiment 5a

Different Domain

- Level of Guilt/Immoral/Wrong
  - Money: 7.54
  - Time: 8.37

Same Domain

- Level of Guilt/Immoral/Wrong
  - Money: 7.50
  - Time: 7.07
Figure 4: Attribution of Guilt Motivation in Experiment 5b

![Bar chart showing the level of guilt in different domains and for different resources.](chart.png)
Figure 5: Perceived Connectedness of the Compensation in the Transgression in Experiment 5b
Appendix 1: Material from Experiment 1

We are interested in students' perceptions of different situations.

Please imagine the following situation. Try to picture the event as vividly as you can. Please keep this event in mind; you will be asked questions about it later on.

You are in a classroom, writing an exam. It is important to you that you perform well on this exam. However, you are stuck on a multiple-part question and you cannot figure out how to solve it. You are sitting at the front of the classroom and you notice that the professor has left the answers to the exam on the front desk, and because of the way the sheet is angled on the desk, you can see the answers to the question you are struggling with. The proctors are all busy elsewhere and so there is very little chance of you getting caught; but if proctors do notice, you will receive a zero on the exam for cheating. You decide to risk your grade by copying the answers.

LLSC is a voluntary health agency dedicated to blood cancer. LLSC funds lifesaving blood cancer research across Canada and provides free information and support services. The mission of The Leukemia & Lymphoma Society of Canada (LLSC) is: Cure leukemia, lymphoma, Hodgkin's disease and myeloma, and improve the quality of life of patients and their families.

Light The Night Walk is an annual fundraising event that LLSC holds. Volunteers are needed for the day before the event (for set-up) as well as the day of the event. It takes a tremendous number of volunteers [donors] to make the Light The Night Walk run smoothly; every bit of help counts!

Would you be willing to volunteer to help out during the two days? If so, how many hours are you willing to commit? [Would you be willing to donate? If so, how much money are you willing to commit?]
Appendix 2: Material from Experiment 2

We are interested in how people visualize and remember past events. For this task, we will need to you to recall a specific life event, and try your best to visualize the event and let it play out in your mind.

You will not need to write about this event, but you will be asked some general questions about the event after this visualization task.

Many people have some sort of immoral experience or done something unethical in their lives, such as stealing, cheating on exam, taking credits for others’ success or ideas, purposely or unwittingly hurting others, etc.

Take a few moments now to think about an event in your life where you violated an important moral principle. Think of a single incident where you behaved in an unethical way.

Consider:
- Where did it happen?
- When did it happen?
- Who were there?
- What did you do?
- After doing what you did, how did you feel?

When the event comes to mind, imagine you are in that situation again, right now, and re-experience the whole event from beginning to end as intensely as you can.

Take a deep breath and close your eyes.

Take your time as you try to do this. Again, please note that you will not need to tell anyone about this event; you do not need to explain your actions to anyone.

Filler Questions

Did this event involve other people?

During which season did this event occur?

When you closed your eyes and visualized the event, did you see any particular colours? If so, please write down the most predominant colour that you saw.
Appendix 3: Material from Experiment 3 - Pretest

Please indicate the amount of money that would make you indifferent between donating that money for a charitable cause and volunteering 1 hour for the charitable cause. That is, to you, volunteering for 1 hour is equal to donating how much money?

Please indicate the amount of money that would make you indifferent between volunteering that amount of time for a charitable cause and donating $10 for the charitable cause. That is, to you, donating $10 is equal to volunteering how much time?

Please indicate the amount of money that would make you indifferent between donating that money for a charitable cause and volunteering 3 hours for the charitable cause. That is, to you, volunteering for 3 hours is equal to donating how much money?

Please indicate the amount of money that would make you indifferent between volunteering that amount of time for a charitable cause and donating $29 for the charitable cause. That is, to you, donating $29 is equal to volunteering how much time?
Appendix 4: Material from Experiment 3

Time-as-Money Elicitation

Imagine that you will be working at a company this summer.

How many hours per week do you think you'll be working for this summer job? (# of hours)

How many weeks do you think you'll be working this summer? (# of weeks)

How much money do you expect to earn, in total (including vacation pay and before taxes), this summer? (amount in $)

Daily Bread Food Bank is a non-profit, charitable organization that is fighting to end hunger in our communities. Every year thousands of people across Toronto rely on food banks. Daily Bread serves these people through neighbourhood food banks and meal programs in over 170 member agencies. Daily Bread also works to support people struggling with hunger by providing job training; researching and educating people on issues around poverty and moving forward with innovative and realistic solutions that will help people break away from poverty.

Daily Bread Food Bank relies on the help and support of community members, including students like you! Volunteers [Donors] are essential for this organization -- every bit helps!

Would you be willing to help out the Daily Bread Food Bank for 1 hour? [Would you be willing to help out the Daily Bread Food Bank by donating $12?]
Appendix 5: Material from Experiment 4

Below are some questions about students' eating habits and preferences. Please choose the response that best describes your habits and preferences.

In a given week, how often do you eat fruits and vegetables?
- Not At All
- Occasionally
- Frequently

In a given week, how often do you eat meat?
- Not At All
- Occasionally
- Frequently

Do you enjoy consuming dairy products (e.g. milk, butter)?
- Not At All
- Somewhat
- Very Much

Do you enjoy eating pork?
- Not At All
- Somewhat
- Very Much

Do you enjoy eating chicken?
- Not At All
- Somewhat
- Very Much

Do you enjoy eating eggs?
- Not At All
- Somewhat
- Very Much

When you buy meat and eggs, do you buy... (check all that apply)
- Regular?
- Organic?
- Free-range?
- I don't eat meat or eggs
As consumers, we often don't think about where our food is coming from. Most of us purchase our meat from grocery stores or restaurants without even thinking about how farm animals are treated.

To be a socially responsible consumer, we need to be aware of our consumption behaviour and the consequences.

Below is an article that reveals some startling facts about poultry farming.

Here in Canada, over 600 million chickens live and die in nightmarish conditions to supply us with their meat and eggs. Thousands of broiler chickens at a time are crowded into dark and dirty warehouses where they have their beak tips amputated without anesthetic, suffer ammonia burns and respiratory diseases from the vast amounts of urine and feces in the environment, are genetically bred to grow so large their skeletons become crippled under their own weight, and suffocate from intense overcrowding. In the factory farming environment, sick chickens are often totally neglected and left to be trampled to death or die of dehydration.

Egg-laying chickens are arguably the most abused animals in the world. They are packed four to six hens at a time into wire battery cages that have a floor the size of a folded newspaper. They spend their lives never being able to spread their wings and barely able to move, standing on sloping wire floors and suffering feather loss and skin damage due to constant rubbing against the cage and cage-mates. Up to 20% of the hens raised under these conditions die of stress and disease. Male chicks have no value to the egg industry, so every year in Canada, tens of millions of chicks are ground up alive or tossed into bags to suffocate within hours of having hatched.

Free-range farming is a more humane way to raise chickens, allowing them space to walk freely; however, this is more costly to the farmers, and hence, the price of free-range chicken and eggs are more expensive than their regular counterparts. Because of the lower price and the greater availability, most of the chickens and eggs we purchase from grocery stores and restaurants are from poultry farms that engage in the cruel practices described in the paragraphs above.
Compensation Task for Money and Time Conditions

We are interested in the types of fundraising events that appeal to students. Please read the following description of an event coming up next spring that will be held on campus, and indicate your interest in helping at this event.

Trees Across Toronto is a tree planting program that responds directly to the tree canopy goal and is a major step forward in reclaiming some of our underdeveloped and “un-treed” lands. Trees are one of the most important features of our natural environment. We need to take action to protect, maintain, and grow our urban forests and natural environment spaces.

Trees Across Toronto holds an annual tree planting event over the span of a weekend. Volunteers [donors] are essential to the success of the event!

We would like to gauge interest now, so that we can start planning for the event.

Would you be willing to commit to volunteering your time [donating your money] to help out?

No Compensation (Control Condition) Task

We are testing out some new cognitive questions for a separate study. Please answer the question below.

How many "e"s are there in the Latin phrases below? Count the number of "e"s in each phrase and record the number in the space provided.

*neque porro quisquam*  
*enim consequat velit*  
*consectetur, adipisci velit*
Appendix 6: Material from Experiment 5a

We are currently testing some scenarios for a study about social exclusion.

Please read the scenario below and imagine yourself in the role of the main character. Try to visualize the situation and play it out in your mind from beginning to end.

*Please keep this event in mind; you will be asked questions about it later on.*

You have a group case study to do for one of your RSM classes. This group project requires four people and the professor is allowing the students to form their own groups. So far, you and two of your classmates have formed a group of three.

One student, Ryan, approaches your group and asks if he can join in. Ryan suffers from muscular dystrophy and is confined to a motorized wheelchair. Your groupmates look to you to make the decision. You hesitate for a moment.

You know that Ryan is a good student, but his immobilized state makes you feel uncomfortable, even though you can't really explain it. You decide to lie and say that you already have a fourth person in your group, and you turn Ryan down.

**Description of Sustainability-Related Event**

Transport Canada is starting up several new initiatives. We are working with them to gauge interest from university students. Please read the following description of an upcoming event that will occur during the spring time, and indicate your interest in helping support this event.

Transport Canada supports the government's environmental agenda through policies, regulations and programs that work to reduce the harmful impact of all transportation modes on Canada's air and water. The Environmental Management Branch focuses on protecting the natural environment and achieving a more sustainable transportation system in Canada.

Transport Canada will be holding an event to raise awareness about developing sustainable transportation within the city of Toronto. This event is held over the span of a weekend. Volunteers [Donors] are essential to the success of the event!

We would like to gauge interest now, so that we can start planning for the event.

Would you be willing to commit to volunteering your time [donating your money] to help out?

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<th>Indifferent</th>
<th>Strongly Agree</th>
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"Right now, I commit to volunteering."
Description of Accessibility-Related Event

Transport Canada is starting up several new initiatives. We are working with them to gauge interest from university students. Please read the following description of an upcoming event that will occur during the spring time, and indicate your interest in helping support this event.

Transport Canada works to develop strategies and policies that help persons with disabilities, seniors and other citizens with unique needs use the national transportation network without undue obstacles. The transportation accessibility R&D program works to develop and adapt technology with the aim of eliminating travel barriers for those with mobility, sensory, or cognitive disabilities.

Transport Canada will be holding an event to raise awareness about developing accessible transportation within the city of Toronto. This event is held over the span of a weekend. Volunteers [Donors] are essential to the success of the event!

We would like to gauge interest now, so that we can start planning for the event.

Would you be willing to commit to volunteering your time [donating your money] to help out?
Appendix 7: Material from Experiment 5b

Alex is a junior in college. Below are descriptions of two incidents that Alex had been involved in. Please read them carefully as you will be asked to make judgments about Alex’s behaviour later.

On Friday, Alex had to form a group to do a project for one of her classes. The group project required four people and the professor allowed the students to form their own groups. Alex and two of her classmates had formed a group of three. One student, Ryan, approached their group and asked if he can join in. Ryan suffered from muscular dystrophy and was confined to a motorized wheelchair. Alex’s groupmates looked to her to make the decision. Alex hesitated for a moment. Alex knew that Ryan was a good student, but his immobilized state made her feel uncomfortable, even though she couldn’t really explain it. She decided to lie and say that they already had a fourth person in their group, and she turned Ryan down.

On Saturday, Alex chose to donate to an event held by the United States Department of Transportation (DOT). The Environmental Management branch of the DOT focuses on protecting the natural environment and achieving a more sustainable transportation system. [The Accessibility Branch of the DOT focuses on developing and adapting technology with the aim of eliminating travel barriers for those with mobility, sensory, or cognitive disabilities. The DOT held a weekend event to raise awareness about developing accessible transportation on Alex’s campus.] The DOT held a weekend event to raise awareness about developing sustainable transportation on Alex’s campus. The event required donors [volunteers] and Alex donated her money [volunteered her time] to support the initiative.

To what extent do you think Alex contributed to the charitable event because she felt guilty about her past behaviour?

[Not at all | O O O O O O O | Very much]
Below are two circles – the red circle represents Alex's decisions and behaviors on Friday; the blue circle represents Alex's decisions and behaviors on Saturday. How closely connected or linked are Alex's decisions on these two days?

Please choose the degree of "connectedness" (or overlap of the circles) between Alex's decisions by checking the appropriate box.