TWO ESSAYS ON CHARITABLE BEHAVIOR

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THESIS ABSTRACT

This dissertation is comprised of two essays on charitable behavior. The first essay is an integrative review of contemporary research on charitable behavior. This review covers seminal articles published in major journals in both marketing and social psychology, organizes this literature into a framework of antecedents and consequences of charitable behavior, and identifies promising directions for future research. The second essay focuses on belief in free will as a key antecedent of charitable behavior. Previous research suggests that belief in free will is likely to have a positive effect on charitable behavior. Essay 2 contributes to this literature by proposing that belief in free will can have either a positive or a negative effect on charitable behavior, depending on the level of endowment origin. This essay also proposes a mechanism based on perceived ownership of money that underlies the effect of belief in free will and endowment origin on charitable behavior. The model developed in essay 2 is tested in four studies, using different manipulations and measures of belief in free will, as well as different measures of charitable behavior.

RÉSUMÉ

Cette dissertation est composée de deux essais sur le comportement de bienfaisance. Le premier essai est une revue intégrative de la recherche contemporaine sur le comportement caritatif. Cette revue couvre des articles séminaires publiés dans des revues majeures en psychologie sociale et commercialisation, organise cette littérature dans un cadre d'antécédents et de conséquences du comportement caritatif et identifie des directions prometteuses pour la recherche future. Le deuxième essai met l'accent sur la croyance dans le libre arbitre comme un antécédent clé du comportement charitable. Des recherches antérieures semblent indiquer que la croyance en le libre arbitre est susceptible d'avoir un effet positif sur le comportement de bienfaisance. L'Essai 2 contribue à cette littérature en proposant que la croyance en libre arbitre peut avoir un effet positif ou négatif sur le comportement caritatif, selon le niveau d'origine de la dotation. Cet essai propose également un mécanisme basé sur la perception de la propriété de l'argent qui sous-tend l'effet de la croyance en libre arbitre et l'origine de la dotation sur le comportement de bienfaisance. Le modèle développé dans l'essai 2 est testé dans quatre études, en utilisant différentes manipulations et mesures de la croyance dans le libre arbitre, ainsi que des mesures différentes de comportement de bienfaisance.

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ESSAY 1

CHARITABLE BEHAVIOR:

A REVIEW AND CONCEPTUAL FRAMEWORK

ABSTRACT

This essay reviews recent and seminal findings in the area of charitable behavior, and presents two directions for future research in charitable behavior. The literature on charitable behavior is organized into a framework of antecedent and consequent factors. Antecedent factors are organized into appeal-based factors and individual factors. Consequent factors, which are less numerous, are treated as a single class of factors. This review is used as a basis for positioning two new research ideas on charitable behavior. The first idea contributes to the literature on antecedent factors by arguing that moral violations in the context of a charitable appeal could influence charitable behavior. The second idea contributes to the literature on consequent factors by arguing that a donor's previous donation amount could influence their subsequent charitable behavior via a new mechanism.

INTRODUCTION

It has been estimated that there are over 1.5 million charities in the United States alone with many more charities operating in other countries around the world (The Urban Institute 2015). These charities range from large international organizations to small local enterprises. Charities focus on different domains such as humanitarian aid, employment, education, animal rights, health, community development, and the environment. For example, the Red Cross provides relief to people affected by natural disasters and conflict; the World Wildlife Fund focuses on the preservation of endangered species; Action Against Hunger and Feed America focus on poverty alleviation; the Society for Prevention of Cruelty to Animals protects animals from abuse; and the American Cancer Society raises funds to fight cancer. Although charities serve an important social function by raising resources for deserving causes, they face several fundraising challenges. First, as outlined above, there are a large number charities competing for donors' limited funds and hence many charities find it difficult to stand out in a crowded marketplace. Second, over one-third of Americans and more than two-thirds of people in the rest of the world do not donate at all to charities (Winterich and Zhang 2014). As a result, charities are missing out on potential donations from a significant number of people around the world. Third, and more fundamentally, soliciting charitable donations involves asking people to help others rather than themselves which contradicts a basic human tendency to behave in a selfish or self-beneficial manner (Dewall et al. 2008; Baumeister, Masicampo, and Dewall 2009).

Given the challenges faced by charities in raising funds from potential donors, it is important to understand the nature of charitable behavior, its antecedents and its consequences. Theoretically, understanding the antecedents and underlying mechanisms of charitable behavior expands our knowledge of the psychology of charitable behavior. Practically, this understanding

could be used to identify levers that charities can use to maximize charitable giving. Similarly, understanding the consequences of charitable behavior and its underlying mechanisms will give insight into its benefits for donors and could suggest persuasion strategies for charities to enhance giving among existing donors. Hence, the overall purpose of this paper is to review the literature on charitable behavior, develop a conceptual framework to organize the findings in the literature, and identify promising directions for future research. In order to develop an up-to-date summary of findings in the leading journals in marketing and psychology, I focused on all relevant articles published in the *Journal of Consumer Research, Journal of Marketing*, *Journal of Marketing Research*, *Journal of Personality and Social Psychology*, *Journal of Consumer Psychology*, and *Organizational Behavior and Human Decision Processes* within the last ten years, i.e., between 2005 and 2015. I supplemented my analysis with several seminal articles going back as far as 1969.

This paper is organized as follows: First, I define prosocial and charitable behavior and distinguish between these two constructs. Then I classify the antecedents of charitable behavior into two categories: appeal factors and individual factors. Appeal factors refer to any variable that affects charitable behavior when it is manipulated within a charity's solicitation materials or strategies. For instance, the amount a charity asks for is an appeal factor. The second category of antecedents is individual factors. Individual factors refer to variables situated within the minds of potential donors that affect charitable behavior. For example, some people consider morality to be an important part of their overall identity, while others do not. This is called moral identity and this factor is discussed as an individual factor. After discussing antecedents of charitable behavior, I review the consequences of charitable behavior in terms of the psychological well-being and subsequent moral behavior of donors. I conclude by developing two future research

projects designed to theoretically and practically contribute to the literature on charitable behavior. The first project contributes to the literature on antecedents while the second project contributes to the literature on consequences of charitable behavior. Figure 1 provides a visual summary of the structure of this paper.

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PROSOCIAL BEHAVIOR & CHARITABLE BEHAVIOR

Prosocial behavior has been defined in different ways in the literature (See Table 1, Panel A). The most common definition stems from the work of Batson (1998) who defines prosocial behavior as "…the broad range of actions intended to benefit one or more people other than oneself." This definition is reiterated in a number of papers on prosocial behavior (cf. Caprara, Alessandri, & Eisenberg, 2012; Feinberg, Willer, & Keltner, 2012; Penner, Dovidio, Piliavin, & Schroeder, 2005). This definition has two important implications. First, actual help doesn't have to occur for a behavior to be prosocial. This is implied by the phrase 'actions *intended* to benefit…' For example, imagine that someone holds the library door open for you. At the same time, your cell phone rings. You decline the open door in order to take the call. Thus, you were not actually helped. Did this person behave prosocially? Well, they *intended* to help you, so yes. The fact that you did not benefit from their behavior is irrelevant. The second implication of this definition of prosocial behavior is that the exact same behavior may or may not be prosocial, depending on whether or not the actor performed it with the intent of helping another. For example, a man may help an old lady cross the street solely to impress his girlfriend. If his sole motivation was to impress his girlfriend, then the behavior was not prosocial. However, if he helped the old lady out of concern for her well-being, then the behavior was prosocial.

Charitable behavior has been explicitly defined less often (See Table 1, Panel B). Many authors consider it to be a subset of prosocial behavior, as defined above (Bendapudi, Singh, and Bendapudi 1996; Zhou et al. 2012; Winterich, Mittal, and Aquino 2013). For example, Zhou et al. (2012) define charitable behavior as "a form of prosocial behavior; such behavior entails actions that intend to help and do help others" (p. 39). This definition implies that charitable behavior is the subset of prosocial behavior that involves donations of resources to charities. Such a definition still carries the limitation that the intent of the acting individual must be to help. While it is probably true that most donations to charity are in fact motivated by intent to help others, it is not necessarily true of every donation. For example, a person may decide to donate solely to manage their public image. Such a donation would not qualify as a charitable behavior under this definition. From a managerial standpoint this is not a useful definition since charities need resources, not intentions. For this reason, others have used a more inclusive definition of charitable behavior.

An alternative definition of charitable behavior proposed in past research is the donation of resources to an organization designed to help others (Harbaugh, Mayr, and Burghart 2007; Bekkers and Wiepking 2011). In this definition, a donor can give for completely selfish, strategic reasons, and their behavior still qualifies as charitable behavior (but no longer as prosocial behavior). The distinction between these two definitions is one of intent. In the first definition of charitable behavior, the intent to help others lies within the individual. In the latter definition of charitable behavior, the intent to help others is a feature of the charity or organization. The latter definition makes no presumptions about the intent of the donor. In the present paper, I include papers which define charitable behavior in either of the two ways described earlier, as long as their dependent measure captures actual or hypothetical donations of resources to an organization

that helps others. Papers which measure helpful intentions without any transfer of resources (i.e. "how likely is it that you would help a student study for 2 hours?") are not included, as they examine a broad form of prosocial behavior which may not generalize to charitable behavior. My overall research objective is to understand the antecedents and consequences of charitable behavior and the mechanisms through which these effects manifest themselves amongst consumers. I begin by surveying the literature on the antecedents or drivers of charitable behavior.

ANTECEDENTS OF CHARITABLE BEHAVIOR

Below I organize the antecedents of charitable behavior into two broad categories: appeal factors and individual factors. As stated earlier, appeal factors refer to variables that can be directly manipulated by the soliciting firm, while individual factors refer to variables that are situated within the mind of the consumer. Within each category, I identify specific variables that influence charitable behavior, their underlying mechanisms, as well as their moderators. I begin by describing the different appeal factors that influence charitable behavior.

Appeal Factors

Appeal factors refer to the different ways that charities can design an appeal to influence potential donors. There are many ways that a charity can design an appeal in a bid to increase donations. For instance, a charity can suggest a specific amount to potential donors, or simply ask for 'a contribution' with no suggested amount in the appeal. A charity can choose to include a picture of a victim in the appeal, choose a specific emotional expression to show on the victim's face, or choose to ask for either time versus money in the appeal. This section reviews such appeal factors, i.e. factors which could be strategically altered by charity managers. A list of appeal factors discussed in this paper is shown in figure 1.

Legitimization of Paltry Donations

Legitimization of paltry donations (LPD) are defined as information in the appeal that welcomes even small donations (Cialdini and Schroeder 1976; Fraser, Hite, and Sauer 1988). Common examples of LPDs are statements in the appeal such as "even a penny counts" or "no donation is too small." One of the earliest studies on LPD found that the inclusion of an LPD increased charitable behavior by facilitating compliance with donation requests (Cialdini and Schroeder 1976). These authors asked 84 participants whether they would consider donating money to a well-known charity: the American Cancer Society. Half of the participants were in the control condition with no specific amount suggested, and the other half listened to the same appeal, with the following LPD added at the end: "Even a penny will help." Charitable behavior was measured in two ways: A) compliance—whether or not the target made a contribution and B) magnitude—the size of their contribution, if they gave. The authors found that average amount given did not vary across conditions, but nearly twice as many people gave in the LPD condition (50%) compared to the control (28.6%). This resulted in greater overall yield for the LPD condition than the control. The authors argue that this effect emerges because of social legitimization. Essentially, they argued that the LPD invalidates typical, socially acceptable excuses for rejecting the request (e.g. "I can't afford it"). Since almost everyone can afford to give a penny, this denies the potential donor the ability to use this socially acceptable justification. The authors compare the social legitimization account to an alternative explanation of charity need. Specifically, they argue that subjects in LPD condition may have perceived the charity to be in greater financial need. So the authors conducted a second study to test these accounts. This second study design matched the first, with two important exceptions. First, this experiment tested two additional LPDs: one in which "Even a dollar will help" was used, and

another in which it was implied that prior donors had given amounts as low as a penny. Second, a subsection of participants in this experiment were asked to indicate the need of the charity without being asked to give any money. The first change was introduced to test the social legitimization explanation, and the second change was introduced to test for the need-based explanation. The authors found support for the social legitimization mechanism, but failed to support the needs-based theory. Additional work has confirmed that these results hold for LPDs delivered over telephone and towards charities that are less well-known (Brockner et al. 1984). I now turn to another paper on LPD which expanded on this work by comparing the effect of LPDs to "large anchorpoints."

Later work on LPDs compared an LPD to a "large anchorpoint" (Fraser et al. 1988). These authors define a large anchorpoint as a suggested donation that is larger than what the average person expects to give. Their study was conducted in the 1980s, and the large anchorpoint they used was a suggested donation of $20. They found that the large anchorpoint drew more donations overall than the LPD. Consistent with prior research on LPDs and charitable behavior, these authors used compliance and magnitude as two dependent measures of charitable behavior. Also consistent with previous findings, these authors found that, compared a control condition with neither an LPD or a large anchorpoint, use of an LPD increased compliance, but did not affect magnitude. Expanding on prior work, the authors also found that the large anchorpoint failed to significantly reduce compliance relative to the control condition, but did significantly increase magnitude. Specifically, donors in the control condition gave an average of $4.00, while those in the large anchorpoint condition gave a significantly higher average of $11.61. Finally, the authors examined total revenue for each condition. They found that only the large anchorpoint increased total revenue compared to the control, but this

difference was only marginally significant. The authors interpreted their results in an anchoring and adjustment framework. Essentially, they argued that if the charity provides a potential donor with an amount to consider (either 'just a penny' or '$20'), these potential donors will only consider giving amounts that are near that amount. So, when potential donors are told that even a penny counts, they consider amounts that are near a penny. Since amounts that are near a penny are small, they are quite affordable. As such, this condition yielded a high rate of compliance, but a low average magnitude (relative to the control condition). The same theoretical framework explains the result in the high anchorpoint condition: When donors are shown a large anchorpoint, they only consider giving amounts that are near that point. Since $20 is relatively larger than a penny, less people are likely to find an amount near it that they can afford to part with. As such, compliance is lower in this condition, but the magnitude of donation made is higher. Unlike LPD which focuses on the amount asked for, the next appeal factor of beneficiary emphasis focuses on the implications of giving.

Beneficiary Emphasis

Beneficiary emphasis reflects the degree to which an appeal highlights how the self versus others benefit from donation. It varies from appeals that predominantly emphasize benefits to the self to those that predominantly emphasize benefits to others. This factor goes by two names in the literature. Originally, it was referred to as "altruistic vs. egoistic appeal type" (Brunel and Nelson 2000; Nelson et al. 2006). Later authors refer to it as "appeal beneficiary" (Fisher, Vandenbosch, and Antia 2008; White and Peloza 2009). Common to both conceptualizations is the comparison of appeals which predominantly focus on benefits to the self versus benefits to others. I will refer to it as beneficiary emphasis.

Two recent papers have investigated the role of beneficiary emphasis on charitable behavior (Fisher et al. 2008; White and Peloza 2009). The first examines the interaction between beneficiary emphasis (self- vs. other-benefit) and emotional valence (negative versus positive) on charitable behavior (Fisher et al. 2008). The authors found that effect of beneficiary emphasis on charitable behavior depended on the emotional valence of the appeal. Specifically, the authors analyzed data from four fundraising periods conducted by a public television channel. To assess beneficiary emphasis and emotional valence, the scripts from each campaign were coded. Each appeal was classified as either other-oriented or self-oriented. For emotional valence, coders responded to the question "How are appeals of this type designed to make you feel?" Coders then indicated their agreement with four emotion statements. The positive emotion statements were designed to assess feelings of love and pride. The negative emotion statements were designed to assess feelings of fear and guilt. As such, each appeal could vary on "positive emotional content" and "negative emotional content" independently. To assess charitable behavior, the authors measured number of calls to the station generated by each appeal. For analysis, the authors specified a linear model which controlled for a number of variables (day of the week, which host read the appeal, etc.). The model contained four interaction terms which were central to their theorizing: A) other-benefit x positive emotional content, B) other-benefit x negative emotional content, C) self-benefit x positive emotional content, D) self-benefit x positive emotional content. The authors found that the interaction of other-benefit and negative emotional content was the only interaction to significantly increase charitable behavior. They also found that the only interaction term to significantly reduce charitable behavior was the self-benefit and positive emotional content term. The remaining two interactions were insignificant. In sum, the authors found that other benefit appeals increased charitable behavior as their

negative emotional content increased. They also found that self-benefit appeals reduced charitable appeals as their positive emotional content increased. The authors argue that the positive effect of other-oriented, emotionally negative appeals on charitable behavior is explained by empathy. Empathy is defined as the extent to which one feels the same thing as someone else. As such, the experience of empathy can be positive, when the shared emotion is positive, or negative, when the shared emotion is negative. Here, the authors argue that the other-benefit appeal encourages viewers to focus on what others are feeling, and the self-benefit appeal does not. When an other-oriented appeal features negative (rather than positive) emotions, empathizing generates negative emotions in the potential donor. Since negative emotions are aversive, potential donors want to reduce, eliminate, or avoid them. In an empathic context, one way that potential donors can stave off negative emotions is to eliminate the negative emotions of the person they are empathizing with. In other words, other-focused appeals with a negative emotional valence work because they do two things. First, they get the donor to share negative emotions with the recipient. Second, the donor understands that, because they are feeling what the recipient is feeling, improving the emotional state of the recipient (via donation) will improve the emotional state of the donor as well. The authors did not predict the negative effect of self-oriented, emotionally positive appeals on charitable behavior, and admit that this effect cannot be reconciled with the empathy-based explanation they provide for their other key finding. They speculate that self-oriented appeals and positive emotion may interact to produce high levels of self-focused motivation, but they do not specify exactly how this might occur.

Additional work has argued that the effect of beneficiary emphasis on charitable behavior depends on whether or not public self-image concerns are salient at the time the appeal is considered (White and Peloza 2009). These authors argue that giving for selfless reasons is

considered normative and thus is socially desirable. However, giving for selfish reasons is considered non-normative and thus, socially undesirable. As such, these authors found that other-oriented appeals increased charitable behavior relative to self-oriented appeals when potential donors' public self-image concerns were heightened (e.g. when they believe their donation decision was publicly visible). Conversely, self-benefit appeals increased charitable behavior relative to other-oriented appeals when considered in private. The authors argue that these effects of beneficiary emphasis emerge because potential donors are motivated to comply with social norms. In a final study, the authors manipulated norms to test their mechanism. Specifically, the authors sought to reverse their original findings by changing what potential donors thought to dominant social norm was. Their results showed that when participants believed that donating as a means to benefit the self was the norm, self-benefit appeals became more effective in public than in private, and other-benefit appeals were more effective in private than in public. Thus, these authors expanded the literature on beneficiary emphasis by identifying self-image concerns as an important moderator. In the next section, I move to a different appeal factor: emotional versus rational content.

Rational versus Emotional Content

As we saw in the previous section, the valence of the emotional content of an appeal can moderate the effect of beneficiary emphasis on charitable behavior (Fisher et al. 2008). However, other work has compared appeals with predominantly rational content to those with predominantly negative emotional content. Specifically, it has been shown that the use of a negative emotional appeal elicits greater intent to help than the use of a rational appeal (Bagozzi and Moore 1994). Specifically, these authors showed participants one of two television public service announcements (PSAs) ostensibly prepared by the Society for Prevention of Cruelty to

Children. The emotional appeal PSA featured a boy running from his father, and ends with a "piercing scream" and a close-up of the boy's face. The rational PSA showed pages of a report on child violence, and the voice over stated some statistics about violence against children. After viewing one of the two ads, participants were asked to indicate how likely they would be to "give help to abused children in our society?" Participants reported greater likelihood of helping when they had seen the emotional PSA than when they had seen the rational PSA. The authors argue that these findings are consistent with an empathy-based helping (as discussed in the beneficiary emphasis section above). Specifically, the authors argue that the emotional appeal leads the donor to empathize with the target in the ad. In this case, the potential donor feels the negative emotions that they perceive the child to be feeling. Since experiencing negative emotions is unpleasant, potential donors seek ways to cope with these feelings. One way to cope with these feelings is to make the target feel better via helping. Thus, charitable behavior is increased in response to emotional versus rational appeal content. This was the first paper to compare rational versus emotional content in the charitable behavior context. However, another paper examined how the emotional expression of victims in an appeal can influence charitable behavior. I now turn to this variable of emotional expression.

Emotional Expression

Emotional expression is defined as the emotional state conveyed by an individual's face (Small and Verrochi 2009). Many charities use pictures of the people they aim to serve in their advertising and fundraising material. Small and Verrochi (2009) demonstrate that these pictures are more effective at generating charitable behavior when the emotional expression in the images is sad rather than happy. Specifically, the authors argue that, according to the theory of emotional contagion, a prospective donor will 'catch' the emotion of the subject in the ad. When the

subject's emotional state is sad, the donor will share their sadness. When the subject is happy, the potential donor will share their happiness. Shared sadness leads potential donors to sympathize with the target more than shared happiness. Sympathy is defined here as a concern for the well-being of someone else. The authors argue that shared sadness produces greater sympathy than shared happiness. Finally, greater levels of sympathy result in greater levels of charitable behavior. This result is similar to prior work on emotions, which showed that negative emotional content is a better facilitator of charitable behavior than positive emotions (Fisher et al. 2008) or rational content (Bagozzi and Moore 1994). However, this prior work used empathy as the chief explanatory mechanism, whereas Small and Verrochi (2009) argued for the role of sympathy as the explanatory mechanism. Since empathy and sympathy are often confused, it is worth spending a moment to distinguish these two concepts. The distinction between the two mechanisms is as follows: Empathy is defined as feeling what another is feeling. Sympathy is defined as a concern for the well-being of another. In empathic theories of giving, it is argued that the donor gives in order to change their own emotional state by changing the emotional state of the target they are empathizing with. In contrast, a sympathetic theory of giving argues that an increased concern for the well-being of others makes outcomes for others more important to oneself, independent of any expected changes in emotional state. We will see both mechanisms used in other work in this paper. In the next section I discuss another appeal factor which utilizes the appearance of victims: victim attractiveness.

Victim Attractiveness

Victim attractiveness refers to how physically good-looking a victim is perceived to be (Fisher and Ma 2014). For example, an attractive child in a charitable appeal might have high facial symmetry and more uniform skin tone, whereas an unattractive child might have more

asymmetrical facial features, and less uniform skin tone. Research has shown that the effect of victim attractiveness on charitable behavior towards that particular victim depends on how severe the victim's need is perceived to be (Fisher and Ma 2014). Victim need refers to how extreme the victim's condition is. For example, if a child's country has been struck by a tsunami which washed away her home and family, then that child is in a more severe condition than a child living in the same area, but whose family and home survived the tsunami. The authors found that when need severity was high, participants gave the same amount to attractive and unattractive children. However, when need severity was low, participants were less willing to help attractive children than unattractive children. They argue that this is because people implicitly believe in a "beautiful is good" stereotype. Specifically, people tend to associate physical attractiveness to a host of other positive traits (intelligence, popularity, sociability, etc.). This leads people to believe that attractive children already have a leg up: that they will have an easier time in life than their less-attractive peers. So, when need severity is low, attractive children garner less sympathy, simply because the people evaluating them assume that more attractive children will have an easier time in life anyway. In the next section I examine how the type of resource that a charity requests effects charitable behavior.

Identifiability

Identifiability is defined as whether or not the recipient of aid has been determined (Jenni and Loewenstein 1997; Kogut and Ritov 2005a; Erlandsson, Björklund, and Bäckström 2015). When a victim is identifiable, they have been determined as the recipient of aid. For example, consider the case of "Baby Jessica." In 1987, Jessica McClure fell into a well where she remained trapped for 58 hours. In mere weeks, Americans quickly donated over $700,000 to her cause, which was more than enough money to retrieve her. Jessica is an identifiable victim

because the people who donated to help her knew exactly who their money was benefitting when they gave. Identifiable victims are often compared to statistical victims. Statistical victims are probabilistic representations of victims that might be helped. For example, the American Cancer Society invests heavily in research to prevent cancer. While it is clear that preventative medicine can save lives, it is impossible to know exactly whose lives it is saving. The seeming paradox of identifiability is that identifiable victims draw greater support than statistical ones, even when the number of statistical victims that would be saved is presented as a larger absolute number. This has been termed the "identifiable victim effect." This section of the paper will cover the literature on the identifiable victim effect by describing the history of research in this area.

One of the early papers on the identifiable victim effect tested four distinct mechanisms (Jenni and Loewenstein 1997). Jenni and Loewenstein (1997) argued that people could be more likely to help identifiable versus statistical victims because: A) identifiable victims are more vivid, B) identifiable victims are certain to suffer or perish if action is not taken, whereas statistical victims are not, C) saving a single identified victim (a girl in a well) constitutes saving 100% of the group at risk, whereas preventing the deaths of an unknown number of future children constitutes saving probably less than 100% of the group at risk and D) identified victims are typically already suffering or in danger, whereas statistical victims are anticipated to be in danger in the future. These four explanations are referred to as vividness, certainty, proportion dominance, and *ex post* versus *ex ante* evaluations, respectively. The explicit goal of their paper was to be the first paper to empirically ascertain the extent to which each of these four factors explains the identifiable victim effect. Notably, this paper did not examine charitable behavior directly. Instead, the authors measured ratings of support for different types of programs. The descriptions of each program are where the four target factors were manipulated. Despite not

containing a measurement of charitable behavior, this paper has been included here for two reasons: First, it serves as a theoretical basis for subsequent papers which do examine charitable behavior, and second, ratings of support for a program would likely be correlated with charitable behavior towards those same programs.

To determine the extent to which each factor underpins the identifiable victim effect, the authors asked participants to rate several pairs of scenarios in which the factors varied. In the first experiment, the authors had each participant read a pair of scenarios for each mechanism. For instance, to assess the impact of proportionality, the authors created two scenarios that saved exactly 25 people. In the large proportion condition, these 25 victims belonged to a group of only 25 at risk. In other words, this program would save the lives of 100% of the people at risk. In the small proportion condition, these 25 victims belonged to a group of 50,000 at risk (i.e. only 0.05% of the group). A similar pair of scenarios was devised for each of the four factors, and participants were asked to indicate how much they supported each scenario. This study only found support for the proportionality mechanism. The three other factors yielded marginal or insignificant results. In a second study, the authors constructed new scenarios and found that only proportionality replicated across their studies. They concluded that a proportion dominance bias appears to drive the identifiable victim effect. In other words, people prefer to save large proportions of victims, irrespective of the absolute number of victims saved.

However, other authors have argued that proportion dominance does not fully account for the identifiable victim effect. Expanding on this work, others have argued that identifiable victims are processed emotionally, while statistical victims are processed more deliberatively (Small and Loewenstein 2003). Specifically, these authors use a subtle manipulation of identifiability to insure that proportionality, vividness, ex-post versus ex-ante evaluations, and

certainty were all controlled. For example, in their second study, participants were asked to consider giving some money to Habitat for Humanity. In both conditions, the money raised would go to help one of four families described in the promotional material. In the low identifiability condition, it was stated that Habitat for Humanity had not yet selected which of the four would receive the money. In the identifiable condition, it was stated that Habitat for Humanity had already selected which family would receive the money. Importantly, participants were never informed which of the families had been selected, only that one had been selected. They found that donations were significantly higher when the family had already been selected compared to when they had not. While these authors argued that their results are consistent with their prediction that identifiability increases sympathy because identified victims are processed emotionally, they never test this proposition directly. Instead, they simply demonstrate that the identifiable victim effect persists even when vividness, proportionality, ex-post vs. ex-ante evaluations and certainty are all held constant.

However, the hypothesis that the identifiable victim effect is mediated by emotional responses has been tested directly in other studies (Kogut and Ritov 2005a, 2005b; Erlandsson et al. 2015). Specifically, it has been shown that the inclusion of identifying information is particularly effective at increasing sympathy and charitable behavior towards singular targets versus groups (Kogut and Ritov 2005b). In a second paper, the same authors find support for the notion that distress may also mediate the effect of singularity and identifiability on charitable behavior. While the authors find that levels of distress and willingness to contribute were both highest in the single identified victim condition, and that level of distress was correlated to willingness to contribute, they never test for mediation directly. These same authors later expanded on their affective model of identifiability by examining the moderating role of group

membership (Kogut and Ritov 2007). Specifically, they replicated the effects from their prior papers, but only found greater contributions to single (versus multiple), identified (versus unidentified) victims when that victim was part of the donor's in-group (versus out-group). The authors found a similar pattern of findings for distress and positive mood change, supporting their theory that the identifiable victim effect occurs because identifiable victims elicit stronger affective responses. However, this pattern of results changes when the in-group and the out-group are adversarial (Ritov and Kogut 2011). The authors argue that when two groups are in conflict, donations to identified members of the in-group will be lower than donation to unidentified members of the in-group. Moreover, donation to identified members of the adversary group will be higher than donations to unidentified members of the adversary group. Before explaining this finding, it is worthwhile to note that the adversarial groups used here were political parties and sports teams. So while it is true that the groups are in competition (what is beneficial to one group is detrimental to the other), they are not so opposed to one another that they would never help across group lines (e.g. like warring states). To explain this finding, they argue that group membership is more salient for adversarial groups. When membership salience is high, people tend to depersonalize members of both groups by focusing on their social identities more than their personal identities. However, identification of victims highlights their differences from the group, making them seem less emblematic of the group. Thus unidentified victims are seen as more emblematic of their group. When considering a donation to an in-group member, they argue that potential donors prefer to give to someone who represents the group, so they give more to unidentified than identified in-group members. Conversely, when considering a donation to an adversarial group member, they argue that potential donors prefer to give to someone who does not represent the group, so they give more to identified than unidentified

adversarial group members. In other words, helping an unidentified member of an adversarial out-group could be seen as an endorsement for the adversarial group, whereas helping an identified member of an adversarial out-group is probably seen as overcoming one's differences to help out an individual. Once again, the authors also find a similar pattern of results for sympathy, providing support for an affect-based explanation of the identifiable victim effect.

This mechanism was replicated in a recent paper which simultaneously compared identifiability, proportionality, and in-vs.-out group effects on charitable behavior (Erlandsson et al. 2015). Specifically, these authors argued that these three factors ought to influence charitable behavior via three unique mechanisms. They find that identifiability affects charitable behavior because it increases sympathy (a mechanism described in this section of the paper). That proportionality affects charitable behavior because it influences perceived impact (a mechanism described in the section of this paper on overhead aversion). Finally, they find that the tendency to donate more to the in-group than the out-group is mediated by feelings of responsibility (a mechanism discussed in the section on power-distance belief).

More recent research has examined non-affective mechanisms for the identifiable victim effect (Cryder, Loewenstein, and Scheines 2013). Specifically, these authors argue that the identifiable victim effect emerges simply because it gives donors the sense that their donation will have an impact. Specifically, the authors argue that identifying victims provides potential donors with additional information. This information helps the potential donors understand the effect their donation will eventually have, which increases the impact that they believe their own donation will have. Impact is a mechanism we have seen before, in the section on Overhead Aversion.

Additional research has tried to eliminate the identifiable victim effect by educating potential donors about it before asking them to give (Small, Loewenstein, and Slovic 2007). Ironically, this factor doesn't increase donations to unidentified victims, but it does decrease donations to identified ones. The authors argue that this finding is consistent with an affect-based explanation of the identifiable victim effect. Specifically, earlier work has argued that the identifiable victim effect exists in the first place because people generate more sympathy for identifiable victims than unidentified ones. Here, the authors argue that teaching potential donors about the identifiable victim effect puts them into a deliberative (rather than an affective) thought processing mode. When people are in a deliberative processing mode, they don't generate sympathy for victims, regardless of their identifiability. When people fail to generate sympathy for victims, they also fail to give. This section reviewed the literature on identifiability and charitable behavior. In the next section, I will examine a different type of appeal factor: the type of resource requested.

Type of Resource Requested

Type of resource requested refers to whether the charity asks for time, money, blood, or any other form of resource (Liu and Aaker 2008). Charities can benefit from both donations of money (e.g. dollar contributions) and donations of time (e.g. volunteer work). These authors show that when a charity is interested in securing donations of time and/or money, they should ask for time first. Specifically, asking for time first yields greater charitable behavior in terms of both time and money than asking for money first. The authors argue that this occurs because the two resources are associated with different mindsets. Specifically, they claim that thinking about spending money activates a value-maximization mindset, but thinking about spending time activates an emotional mindset. Further, emotional mindsets increase the salience of emotional

beliefs. In particular, these authors argue that the belief that 'giving leads to happiness' will be more salient when an emotional mindset is activated. This mechanism was confirmed in a study where the authors found that participants who had been asked to consider giving time before money agreed more strongly with the statements "to what degree do you believe happiness is tied to volunteering?" and "To what degree do you believe happiness is tied to donating money?" Responses to these items significantly mediated the effect of type of resource requested on charitable behavior. This section examined how the type of resource requested impacts charitable behavior. The next section will examine another way of designing a request called contingent match incentives.

Contingent Match Incentive

Contingent match incentives refer to pledges of one donor to match the sum of all other donors, given that prior donors achieve some compliance rate (Anik, Norton, and Ariely 2014). For example, "If 50% of donors upgrade their one-time donations to recurring donations, we will match all donations given today." Here, someone is pledging to match the sum of other donors' contributions, but only if a certain precondition is met (that 50% of other donors select recurring donations). Contingent match incentives can either be set at low or high levels. For instance, if a contingent match incentive will trigger at only 10% compliance, then that contingent match incentive is relatively low. Conversely, if a contingent match incentive will only trigger at 100% compliance, then that contingent match incentive is high. Research has shown that the effect of contingency match incentives on charitable behavior is nonlinear. Specifically, the authors tested contingent incentives at the 25%, 50%, 75%, and 100% levels. They found that the 75% level generated the most upgrades from single-time to recurring donations. The authors argue that this effect occurs because contingent matching incentives influence two competing mechanisms.

First, the higher the contingent match level, the less likely it is to be met. As such, people infer that the plausibility of the contingency match happening is low. Second, the higher the contingent match level, the more a person expects other people to participate. In other words, the greater the contingent match level, the stronger the social proof it provides. For example, if a charity sets a contingent match of 25%, a potential donor might infer that the goal is easy to reach (plausible), but that most people choose not to upgrade (social proof). Whereas a 75% contingent match implies that most people do (even if this is not actually true). To confirm this explanation, the authors conducted a parallel mediation analysis using measures of both plausibility and social proof. Both emerged as significant mediators. These authors are the first to examine this type of appeal empirically. In the next section, I examine a more subtle influence technique of asking for relatively costless forms of support.

Token Support

Token support refers to support for a charitable cause that is relatively costless (Kristofferson, White, and Peloza 2014). For instance, a person may 'like' a charity's facebook page, or wear a free Remembrance Day pin. Recent research on token support has found that, rather than distracting consumers from actual charitable behavior, acts of token support can actually increase charitable behavior under certain circumstances. Specifically, these authors found that an act of token support increases charitable behavior when the act is performed in private, rather than in public. They argue that this occurs because private acts of token support produce value alignment: a sense that the values of the charity are similar to one's own personally held values. This occurs because people look to their own behavior as evidence for the sort of person they are. Public acts are perceived as being performed for appearance's sake, and thus are not considered diagnostic of one's self-concept. However, private acts are

performed in isolation from impression-management concerns and thus are perceived as more indicative of one's self-concept. Therefore, a private act of token support leads the supporter to feel that their values align with that of the charity, thus increasing charitable behavior. Conversely, a public act of token support is perceived as an act of impression management, and does not affect charitable behavior. In the next section, I discuss another appeal factor called requester stigma.

Requester Stigma

Requester stigma refers to whether or not the solicitor of a charitable donation belongs to a stigmatized group (Norton et al. 2012). Many of the appeal factors discussed in this section provide answers to the question "how should a charity ask for donations?" However, very little work addresses who should do the asking. Research on requester stigma has shown that stigmatized requesters (someone physically handicapped or belonging to an ethnic minority) generate more charitable behavior from non-stigmatized (able-bodied, or white) potential donors than non-stigmatized requesters. In an initial study, the authors found that people intercepted at a train station were more likely to buy a cause-promoting pin from a confederate sitting in a wheelchair than when the same confederate was sitting in a normal chair. The authors argue that this occurs because non-stigmatized donors want to avoid appearing prejudiced towards stigmatized people. Not helping out a stigmatized person is a behavior that someone could attribute to prejudiced attitudes. So many able-bodied potential donors would rather give than risk being labelled as prejudiced. As such, these authors propose that impression management is the mechanism behind their effect. As such, the effect should only hold in live encounters with a stigmatized solicitor. Prerecorded solicitations from a stigmatized solicitor convey no opportunity for prejudiced inferences to be formed, and thus shouldn't influence charitable

ebahvior. To test this mechanism, the authors conducted a second study where participants were solicited to donate either face-to-face, or via a video recording. In both conditions, confederates followed the same solicitation script. The confederates in the video recording condition were the same as the confederates in the face-to-face condition. This experiment also sought to generalize their initial findings by manipulating requester race (rather than able-bodiedness) and measuring persuasiveness (rather than charitable behavior). Their findings were consistent with their theory. Specifically, non-stigmatized people only found the stigmatized confederate more persuasive when they interacted with the confederate live versus via a recording. In the next section, I discuss how overhead allocation affects charitable behavior.

Overhead Amount

Overhead amount is the proportion of revenue that a charity spends on everything besides their central cause (Gneezy, Keenan, and Gneezy 2014). For example, salaries, leases, and utility bills are all forms of overhead expenses. Overhead amount can vary from relatively small to relatively large. For instance, a charity that operates with only 5% overhead has a small amount of overhead, whereas one that operates with 50% overhead has a large amount of overhead. These authors showed that overhead amount was negatively related to charitable behavior. Specifically, they compared eleven levels of overhead (ranging from 0% of revenue to 50% of revenue), and found a negative effect of overhead level on charitable behavior. The authors argue that this effect emerges because potential donors perceive that higher overhead amount reduces the impact of a donation. To illustrate, consider a charity with 50% overhead. Fifty percent overhead implies that only 50% of a donor's gift will end up helping the cause, and the rest will go to overhead. As such, donors recognize that a $10 donation to a charity with 50% overhead will only provide $5 of help to the cause. However, donors considering donating to a charity with

10% overhead will infer that a $10 donation is rendering $9 of help. Since $9 of help is greater than $5 of help, donors infer that their gift has a bigger impact when it is donated to the 10% overhead charity versus the 50% overhead one. To test this explanation, the authors examined the moderating effect of seed money allocation. Seed money allocation refers to how a charity chooses to spend a large seed donation. This sort of donation is usually provided by a philanthropist who wants to kick start a particular cause. The authors compared two ways of distributing seed money: distributing it evenly to both overhead and cause expenses (the even-distribution condition) versus distributing it exclusively to overhead (the overhead-only condition). So, in both conditions, potential donors were informed that a generous philanthropist had made a substantial contribution. In the even-distribution condition, this large contribution had helped cover both overhead and cause-related expenses, just like a normal donation would. However, in the overhead-only condition, this large contribution had been used to cover overhead exclusively. Consistent with their impact-based explanation, the authors found that, in the even-distribution condition, overhead amount reduced donor's willingness to give. However, this negative effect disappeared in the overhead-only condition. In other words, once the overhead was covered, participants knew that 100% of their donation would go to the cause, and thence were more inclined to give. Importantly, this was true across a large range of overhead amounts (from 0% to 50%). As such, donors appear to be sensitive to how much of their own donation is paying for overhead, but generally insensitive to how much overhead the charity runs in general. In the next section I examine another appeal factor: entitativity.

Entitativity

Entitativity is defined as the extent to which a group is perceived as a coherent unit (Smith, Faro, and Burson 2012). For example, a group of six children that are classmates is

perceived as less entitative than a group of six children that are siblings. These authors find that charitable appeals that portray victims as highly entitative groups generate more charitable behavior than appeals that portray victims as less entitative. They argue that this occurs because entitativity increases the extremeness of evaluations of the group. When groups are low in entitativity, they are perceived as a haphazard collection of varied individuals, some good and some bad. This results in average evaluations of the group as a whole. However, when groups are high in entitativity, they are perceived as a collection of unified individuals. In other words, the group is more likely to be seen as 'all good' or 'all bad.' To test this mechanism, the authors included an experiment which varied the valence of the group in addition to entitativity. Specifically, they compared a group of six children that were classmates (positive valence) or prisoners (negative valence). Then, the children were either described as siblings (high entitativity) or not (low entitativity). Consistent with their evaluation extremity-based explanation, high (compared to low) entitativity reduced charitable behavior towards the negatively valenced group, but increased charitable behavior towards the positively valenced group. In the next section I examine the research on corporate social responsibility and charitable behavior.

CSR Record

Corporate social responsibility (CSR) record refers to the valence of a firm's history of socially responsible behavior (Lichtenstein, Drumwright, and Braig 2004). Some firms have negative CSR records, while others have positive CSR records. For example, a media expose of a firm's poor working conditions is a negative form of CSR. Conversely, if a firm is featured in a documentary about providing excellent working conditions for their employees, this would establish the firm as having a positive CSR record. Do these records influence the fundraising

capacity of the charities that these firms sponsor? Intuitively, one might expect donors to be more generous towards charities sponsored by firms with a positive CSR record. However, these authors find that CSR record can have both positive and negative effects on charitable behavior.

These authors found that historical CSR has a positive relationship on charitable behavior through a mediating variable called customer-corporation (C-C) identification. C-C identification simply refers to the perceived overlap between a customer's self-concept and their perception of the firm. Ergo, they found evidence for a positive, indirect effect of CSR on donation, through C-C identification. However, the authors noticed that once the effect of C-C identification was accounted for statistically, the remaining main effect of CSR on charitable behavior was *negative*. They hypothesized that this negative effect might be explained by consumers' desire to help a bad firm do good. Specifically, they argued that consumer perceive a large opportunity to do good when a company's prior CSR behavior was predominantly negative. Essentially, consumers appear to be more likely to give to a firm-sponsored charity when that sponsoring firm is trying to make up for a suboptimal CSR record than when the charity sponsorship is just business as usual. The authors established these effects via both survey methods (measuring individual differences in perception of CSR reputation) and experimental methods (manipulating CSR reputation in a scenario that participants read). To measure charitable behavior, participants were offered two pricing options for a product. The first option was to pay full price for the product, but some proportion of that price would go to the charity. The second option was to pay a discounted price, but no money would go to the charity. In the survey study, the donation/discount amount was $3. In the experimental studies, this amount was $6.50. Participants were asked to indicate how likely they would be to choose the donation on a continuous scale (1-7) as well as asked to make a dichotomous choice. The results showed that

when the firm had a negative CSR record, consumer rated themselves as more likely to take the charitable option. In the next section I will discuss another appeal factor: time horizon.

Temporal Distance

Temporal distance refers to the gap in time between now and some future event (Rogers and Bazerman 2008). When temporal distance is short, the event is happening soon (e.g. today). When temporal distance is long, the event will transpire later in the future (e.g. a week from today). These authors demonstrated that temporal distance increased charitable behavior. Participants were asked to imagine that the researcher would either give the participant $5 or make a donation to the United Way. Specifically, participants were asked "What amount of money for United Way would be necessary for you to forego the $5 cash?" In the temporal distance short condition, participants were informed that the $5 payment or $X donation would occur on the day of the experiment. In the large temporal distance condition, participants were informed that the $5 payment or $X donation would occur a week from the day of the experiment. In the short temporal distance condition, the average donation required to forego $5 for oneself was $88.73. In the long temporal distance condition, the average donation reuired to forego $5 for oneself was $10.99. Thus, participants were more willing to forego $5 for themselves in lieu of a donation to charity when the donation would take place a week from the moment they made the decision compared to when the donation would take place at the moment they made the decision. These authors argued that this effect emerged because the time horizon of a decision impacts potential donors' construal level. Construal level refers to the degree of conceptual abstraction that a person uses when considering a given set of information. A low construal level is concrete, and focuses on the tangible, actionable features of information. A high construal level is abstract, and focuses on the general, substantial features of information.

When the temporal distance of a decision is short, people consider it with a low construal level (e.g. "How *could* I spend this $5?"). When the time horizon is long, people consider the decision with a higher construal level (e.g. "How *should* I spend this $5?"). Thinking about how one should spend the money favors more selfless forms of spending, like charitable behavior. Thus, people are more likely to donate when they are considering a donation in the distant, rather than the immediate, future. Now I will turn to a different appeal factor: Flyer Mailout Frequency.

Mailout Frequency

Mailout frequency refer to the periodicity with which a charity distributes solicitations for aid, usually to a mailing list composed of prior and potential donors (Diepen, Donkers, and Franses 2009). Research on mailout frequency has shown that charities average about three and half mailers per year. In other words, most charities appear to send a mailer every three or four months. However, this strategy is not set in stone. Charities may administer more or less mailers per year, depending on the opportunities they perceive in the market. This research demonstrated that when a charity sends an additional mailout (above its own average) it reduces donations to itself, but increases donations to competing charities. These authors argue that this occurs because the additional mailout makes donors feel irritated with the mailing charity, but guilty about the need to donate. Taken together, these two forces result in lowered donation towards the mailing charity, and greater donations towards their competitor. This research examined how the frequency of mailers influences charitable behavior towards a charity and its competitors. The next section will cover another appeal factor: Type of Information.

Benefit Information

Benefit information refers to the extent to which a charitable appeal highlights the positive effect, or benefits, for the people it serves (LaTour and Manrai 1989). Within an appeal, benefit information can be absent or present. When benefit information is present, it can vary in strength. For example, a weak form of benefit information for a blood drive might explain that blood is required for some surgical procedures. A stronger benefit information appeal might explain exactly which procedures need blood, how common those procedures are, and what the consequences of a blood shortage would be. These authors show that the effect of benefit information on charitable behavior depends on the normative information in the appeal. In this research, normative information simply refers to evidence that a certain behavior is typical among members of one's social group (LaTour and Manrai 1989). This evidence can be absent or present. For example, if a blood drive solicitor states that they are a member of your community, they have provided you with normative information (e.g. at least one member of your community supports the blood drive). If they do not state that they are a member of your community, then normative information is absent. These authors found that appeals which contained benefit information generate more charitable behavior than appeals which did not. Moreover, this effect was stronger when normative information was also present, compared to when normative information was absent from the appeal. The authors explain these findings by arguing that most potential donors are predisposed to be reluctant to donate (cf. Dewall et al. 2008; Baumeister et al. 2009). LaTour and Manrai (1989) argue that potential donors will justify the desire to not donate on at least two bases. First, a person might not believe that giving will help much. This mechanism is the same as the impact mechanism described in the overhead amount section (Gneezy et al. 2014). Essentially, people may doubt that their contributions will have any meaningful impact. The authors argue that the presence of benefit information (i.e.

details about exactly how helpful a person's contributions are) should disable this line of counter-argumentation. The second basis for not giving is the belief that not many people are giving. If few people are giving, then the potential donor will use this as an excuse to also not give. This mechanism is essentially the norm compliance mechanism discussed in the section on beneficiary emphasis (White and Peloza 2009). LaTour and Manrai (1989) argue that benefit emphasis increases perceived impact, while normative information increases the perception that giving is normative. However, the authors argue that pulling only one of these levers at a time will only generate weak effects. In other words, if you only inform people about the positive benefits of donating, they will focus on the normative reason to not donate, and vice versa. This leads to rather weak main effects for each type of information. The authors argue that only by providing both benefit information and normative information can an appeal disarm these two justifications for not giving. In the next section, I will discuss one last appeal factor: reference product.

Reference Product

A reference product is a product that costs about the same as a suggested donation (Savary, Goldsmith, and Dhar 2014). For instance, Wikipedia might say, "please give $3, note that $3 is about the price of a cup of coffee." These authors found that these appeals are effective at increasing charitable behavior, but only when the comparison product is a hedonic product. When the comparison product is utilitarian, they find no effect of including a reference product. The authors argue that this is the case because donating provides more self-signaling utility in the presence of a hedonic versus a utilitarian comparison product. Self-signaling utility refers to positive traits that a person infers about themselves as a result of their own behavior. For example, if a donor chose to donate $5 instead of spending $5 on their favorite ice cream, they

can reasonably infer that they themselves are not only kind, but that they value kindness over selfish indulgence. Conversely, if a donor chose to donate $5 instead of spending $5 on toothpaste, they can't really tell themselves that they value kindness over their own selfish motives. This research found that comparing a donation to similarly price hedonic product increased charitable behavior because hedonic comparison products lend more self-signaling utility to the donation choice. That concludes the section on appeal factors. In the next section, I will discuss individual factors.

Individual Factors

The previous section covered the literature on appeal factors that influence charitable behavior. In contrast, individual factors are a class of variables that are situated within the minds of potential donors. I will begin the review of individual factors with one of the most-studied of individual difference factors: moral identity.

Moral Identity

Moral identity refers to the associative network of moral traits, goals and behavior that an individual attributes to themselves (Aquino and Reed 2002; Aquino et al. 2009). In other words, it is the collection of ideas in a person's mind that describes who they are when it comes to ethical thoughts, beliefs, values, and behavior. The study of moral identity has mostly focused on two aspects moral identity: self-importance and salience. I will discuss these aspects of moral identity briefly and then review the literature on moral identity and charitable behavior below.

The self-importance of an identity reflects how "likely it is that this identity will be invoked across a wide range of situations and the stronger will be its association with moral cognitions and moral behavior" (Aquino and Reed 2002, p. 1425). In other words, a person

whose moral identity is very important to them will utilize that identity as a guide for thoughts and behavior across a greater number of situations than a person whose moral identity is less important to them. Salience refers the degree to which, at any given moment, a person's moral identity is mentally accessible, regardless of how important it is to them. That said, someone with a highly self-important moral identity will tend to have a more chronically salient moral identity. However, even a person who considers their moral identity to be of low importance can experience moments where it is temporarily salient.

Aquino and Reed (2002) were the first to identify that the self-importance of moral identity has two underlying dimensions: internalization and symbolization. Internalization reflects the degree to which a person's overall self-concept is determined by their moral identity. As such, internalization is sometimes referred to as "centrality" to reflect the notion that one's moral identity can be more central or less central in guiding thoughts and behavior. Symbolization reflects the degree to which one communicates one's moral identity to others. Given that helping others is generally considered to be morally good, it is no surprise that the literature on charitable behavior has included a number of papers examining the role of moral identity and related constructs (internalization, symbolization, and salience) as antecedents of charitable behavior. I will begin now by discussing some of the research on moral identity importance and charitable behavior.

The effect of moral identity importance on charitable behavior has been shown to depend on both the gender identity of the donor as well as the group membership of the victim (Winterich, Mittal, and Ross Jr. 2009). Gender identity refers to the extent to which one identifies as masculine versus feminine. Victim group membership refers to the whether the target of the recipient of aid belong to one's in-group or an out-group. These authors were the

first to argue that for those with a feminine gender identity, moral identity importance increases charitable behavior towards members of out-groups, but not to members of the in-group. This effect did not hold for those with a masculine gender identity. For those with a masculine gender identity, moral identity importance increased donations to the in-group, but not the out-group.

The authors argue that this pattern of results can be explained by a construct named 'inclusion of others in the self' (IOS). IOS is defined as the sense of being interconnected with others. The authors argue that moral identity importance, gender identity, and group membership all related to IOS. The relationship between moral identity importance and IOS is fairly straightforward. Morality refers primarily to how one should treat others. As such, the more important one's moral identity is to oneself, the more important others are to oneself, and the higher IOS should be. The relationship between gender identity and IOS is slightly more complex. Masculine gender identity is associated with agentic goals and a predominant focus of concern for oneself. As such, masculine identity is associated with low IOS. Conversely, feminine gender identity is associated with communal goals and a greater concern for others. As such, feminine identity is associated with high IOS. All else being equal, people tend to feel more interconnected with their in-group than any out-group. Ergo, the authors argue that moral identity importance, gender identity, and victim group membership all act in concert to influence charitable behavior through IOS. For example, someone with a masculine gender identity and a low moral identity importance only cares about themselves, and will not donate much to anyone (in-group or out-group). Now imagine the same person with a strong moral identity importance. The authors argue that this will increase their IOS enough to increase their donations to the in-group, but probably not enough to increase their donation to the out-group. Someone with a feminine gender identity and a low moral identity importance is already high enough in IOS to

donate to the in-group. However, increasing their moral identity importance would boost IOS to such an extent that they would increase donations to the out-group.

However, moral identity does not always increase charitable behavior. Recent research has provided the first glimpse of a case when moral identity actually reduces charitable behavior. Specifically, when the recipients of charitable donations are responsible for their own plight, the effect of moral identity on charitable behavior is negative (Lee, Winterich, and Ross 2014). This occurs because moral identity not only increases our concern for the well-being of others (which partially accounts for the positive effect), but also our concern for the justifiability of outcomes. In other words, moral identity salience increases our concern with the perceived justice of donating. When the recipients of aid are responsible for needing the aid in the first place (e.g. they are homeless because they drink too much to hold a steady job), moral identity increases the sense that those victims deserve their situation, and thence, giving them money would be unjust. However, when recipients are not responsible for their plight, moral identity salience increases feelings of empathy, which increases charitable behavior.

Moral identity has also been used as a moderator of other antecedents of charitable behavior. Specifically, research has shown that the effect of donor recognition on charitable behavior depends on the donor's moral identity internalization and symbolization (Winterich et al. 2013). The authors define recognition "as an explicit expectation by the donor that their donation behavior received or will receive attention by one or more persons" (p. 121). These authors find that recognition only increases the charitable behavior of donors who are low in internalization but high in symbolization. These authors were the first to argue for this three way interaction in the literature. They argue that these results are consistent with a self-verification framework. Specifically, they argue that those who are low in internalization but high in

symbolization require social reinforcement from others to determine how moral they are. The authors define social reinforcement as confirmation from others. Without recognition, there is no opportunity for social reinforcement. Thus, someone who is low on internalization but high on symbolization will not feel compelled to give. With recognition present, this same person perceives an opportunity for social reinforcement and thus is more likely to behave charitably. In the next section, I will discuss a different aspect of identity: Identity congruency.

Identity Congruency

Identity congruency refers to the overlap between the identities of oneself and another (Shang, Reed, and Croson 2008). For example, if you are a female, you probably have identity congruence with other females, but not with males. Identity congruency has been shown to have a positive effect on charitable behavior, but only under certain conditions. Specifically, these authors conducted a field experiment during a telephone fundraising event for a local radio station. In all conditions, the telephone operator mentioned that another person had already donated $240. In the low identity congruency condition, this person was described as the opposite sex of the potential donor. In the high identity congruency condition, this person was described as the same sex. Results showed greater overall contributions when identity congruency was high. The authors were the first to argue that these results emerge because people have a strong desire to be consistent with their identity, and the behavior of those with a congruent identity serves as a guide. To test this underlying mechanism, the authors investigated two additional moderators: identity esteem and self vs. other focus. Identity esteem refers to the extent to which a person views a given identity as significant, meaningful, and important to their overall self-concept. The identity congruency effect observed previously was strongest when identity esteem was high compared to low. This is because individuals aren't particularly

motivated to be consistent with identities that they don't view as significant, meaningful, and important to their self-concept. Finally, self vs. other focus refers to the object of potential donors' attention. When potential donors are self-focused, they are, by definition, not attending to others. As such, the identity congruency effect was strongest when people were other-focused, and weaker when they were self-focused. I now turn to another individual factor: childhood memories.

Childhood Memories

Childhood memories are a type of autobiographical memory defined as the recollection of experiences related to one's own childhood (Gino and Desai 2012). For example, if one thinks of a time in one's life when one was seven years old, this memory is a childhood memory. Recalling a time in one's life when one was twenty-three would not be a childhood memory. Research has compared the charitable behavior of those recollecting a childhood memory to the charitable behavior of those recollecting a memory from other points in their lives (e.g. high-school). The authors found that recalling childhood (versus high-school) memories increased a charitable behavior. They argue that this occurs because recalling childhood memories evokes a state of moral purity. They define moral purity as "a psychological state that results from a person's view of the self as clean from a moral standpoint and through which a person feels innocent and virtuous" (Gino and Desai 2012, p. 744). Similar to the work on moral identity, these authors argue that once a state of moral purity is active, a person will behave in ways that are consistent with this state. Thus the authors argue and find that relative to memories from high school, childhood memories evoke moral purity and that moral purity is positively associated with charitable behavior. Next, I turn to another individual factor: forgiveness.

Forgiveness

Forgiveness is define as “an intrapersonal prosocial motivational change towards an offender” (Karremans, Van Lange, and Holland 2005, p. 1315). In other words, these authors conceptualize forgiveness as the change within ourselves regarding how we want to behave towards someone who has offended us. Essentially, forgiveness is characterized as the change from wanting to harm, punish, or avoid an offender, to being concerned with their well-being. In everyday life, people are occasionally wronged or slighted by the people they interact with. In response to these events, the wronged individual can forgive the offender or not. Research on forgiveness has shown that forgiveness towards a single target increases charitable behavior towards irrelevant causes. Participants in this experiment were asked to recall a time where they had forgiven someone (in the forgiveness condition), or a time where they had not forgiven someone (the unforgiveness condition). Afterwards, they were asked to indicate how much time they would consider volunteering to a charity. Additionally, there was a cash donation box in the room where the experiment was conducted. Both amount of time and money donated were treated as measures of charitable behavior, and both were higher in the forgiveness condition than in the unforgiveness condition. The authors argue that this effect emerges because forgiveness results in a more inclusive self-concept. In other words, forgiveness gets people to integrate others into their self-concept. This mechanism was discussed earlier in this paper, in the section on moral identity. The integration of others into the self-concept begets more prosocial behavior towards others in general (including charitable behavior). This section covers the research on forgiveness. Now I turn to another individual factor: social class.

Social Class

Social class refers to the material conditions that influence the day-to-day lives and identities of people (Piff et al. 2010). For instance, a member of the lower class in the United

States may not have the financial resources to pursue an education after high school, or the take vacations in foreign countries. Conversely, a member of the upper class in the United States has greater access to these resources. Given that those from upper classes have more wealth, it would follow that they have a greater capacity to give to charity than their lower class counterparts. However, research has shown that social class is negatively related to relative charitable behavior. Relative charitable behavior refers to the proportion of one's income that one donates to charity. As such, this measure captures charitable behavior, given one's means. These authors argue that people from a lower class are more charitable because life in the lower class fosters more interdependence than life in upper class. Specifically, the life of a lower class individual is fraught with uncertainty and instability. To help them deal with this uncertainty and instability, those from lower social classes depend on one another for support. Upper class individuals, however, have the resources to weather bad fortune alone. This creates a difference in social orientation across social class. Those from lower classes are more oriented towards others. In turn, this greater orientation towards others results in greater consideration of their needs, and thence, greater relative charitable behavior. In the next section, I will discuss another individual factor: past moral behavior.

Past Moral Behaviors

A moral behavior is a behavior which is seen by the actor as good, selfless, or kind (Khan and Dhar 2006; Conway and Peetz 2012; Gneezy et al. 2012). So far, the literature reviewed here would suggest that, because people have a desire for their behavior to be consistent with their self-concept, a prior moral action should beget a subsequent moral action. In other words, past moral behavior should affirm one's moral identity, and this affirmation should increase charitable behavior. However, the literature on past moral behavior has found the opposite (Khan

and Dhar 2006; Mazar and Zhong 2010). Specifically, this literature shows that a previous moral behavior (e.g. helping out a fellow student, buying environmentally friendly products, or endorsing racial equality) reduces subsequent moral behavior (including charitable behavior). Such effects have been called "moral licensing" effects. Note that this vein of research implies that any moral behavior can serve as the initial moral behavior (i.e. the independent variable) or the subsequent moral behavior (i.e. the dependent variable). Since charitable behavior is considered a moral behavior, it has been treated as both an independent and a dependent variable in moral licensing papers. Here, I will cover the research which examines charitable behavior as a dependent variable. Later, in the consequences section of my paper, I will also cover the research which has examined charitable behavior as an independent variable. Both sets of findings seem to contradict work on moral identity which argues that people are motivated to behave in ways that are consistent with their self-concept. In contract, licensing theories argue that people tend to stay at their 'normal level' of morality by balancing out the virtuousness of their behavior over time.

The literature on moral licensing has largely focused on generalizing the moral licensing effect across morally relevant domains. For example, one of the first papers on moral licensing looked at several different previous moral behavior such as volunteering to help someone, donating some of a tax rebate to charity, and offering help to a foreign classmate, and secondary moral behaviors such as choosing hedonic versus utilitarian products, and donating money (Khan and Dhar 2006). The authors argue that an initial moral behavior increases one's positive self-assessment (how positively one views oneself). The authors argued that this positive self-assessment provides people with a buffer which protects their self-concept from choices which would otherwise diminish self-assessment (e.g. selecting an indulgent product). In other words,

temporarily feeling quite good about oneself allows you to select selfish or indulgent options that might otherwise make one feel bad about oneself. Khan and Dhar (2006) were the first to introduce this mechanism to the consumer behavior literature. Additional research has further generalized it to the domains of racial preference (including a measurement of relative donations to a support poverty-stricken African-Americans versus poverty-stricken Whites) and pro-environmental behavior (Effron, Cameron, and Monin 2009; Sachdeva, Iliev, and Medin 2009; Mazar and Zhong 2010). In sum, the moral licensing literature argues that people use prior moral behavior to justify future immoral behavior (including a reduction in charitable behavior). Again, it is worth noting that this finding ran against what had been known from the moral identity literature: That people try to behave in ways that are *consistent* with their past behavior. In licensing, people behave in a *compensatory* manner. Luckily, researchers have recently begun to try to resolve this seeming paradox.

Research has shown that the tendency for consistent versus compensatory action is determined by the individual's construal level (Conway and Peetz 2012). Construal level refers to the degree of conceptual abstraction that a person uses when considering a given set of information (and was discussed in the *Temporal Distance* section earlier in this paper). These authors find that when consumers consider their previous moral behavior in a low, concrete construal level, compensatory effects emerge. In other words, a concrete construal leads to moral licensing. However, if consumers consider their prior moral deeds in a higher, abstract construal level, consistency effects emerge. Specifically, the authors argue that an abstract construal of past moral behavior highlights the moral values underlying the behavior, which lead to greater charitable behavior (consistency). However, a concrete construal of past moral behavior reminds people that they have fulfilled a moral obligation, entitling them to slack off, and reducing their

charitable behavior. In the next section of this paper, I examine how construal level, which was just discussed as a moderator, has been treated as an independent variable in research on charitable behavior.

Construal Level

Construal level, as discussed above, refers to the level of abstraction with which a person represents events in their mind (Conway and Peetz 2012; Rixom and Mishra 2014). A low construal level causes people to focus on concrete, detailed features of a situation, whereas a high construal level causes people to focus on more abstract, global features of a situation. Research has examined the effect of construal level on performance-contingent charitable behavior (Rixom and Mishra 2014). These authors investigated participants' willingness to lie about their own performance when that lie would benefit them versus a charity. They found that a low construal level increased the use of deception in the self-benefit condition, but not in the charity-benefit condition. Conversely, a high construal level increases the use of deception in the charity-benefit condition, but not the self-benefit condition. Deception was inferred by comparing each condition to a parallel control condition where participants were not able to lie. The authors argue that low construal levels, with their associated focus on concrete, practical considerations, produce rationally self-interested behavior (e.g. cheating to inflate monetary gain when one can't be caught). Conversely, high construal levels, with their associated focus on abstract, broader implications produce behavior that is consistent with the greater good (e.g. cheating to inflate the size of a donation to charity). In other words, people in an abstract mindset are willing to violate a proximal moral norm (do not cheat) in service of a greater social good (donating to needy others). That covers the literature on construal level. Next, I will examine literature on how prior acts of self-control effect charitable behavior.

Act of Self-Control

An act of self-control simply refers to any behavior which involves the resistance of one's short-term desires in order to pursue one's longer-term goals (Dewall et al. 2008; Fennis, Janssen, and Vohs 2009). Research linking acts of self-control to charitable behavior has yielded conflicting results. One paper found that an act of self-control reduces subsequent charitable behavior (Dewall et al. 2008), but another paper found exactly the opposite (Fennis et al. 2009). I will cover these two papers in chronological order below.

DeWall and colleagues (2008) found that participants who had committed an act of self-control exhibited lower charitable behavior than participants who hadn't committed an act of self-control. They argue that this effect emerged because both self-control and charitable behavior require self-regulatory resources. As such, performing a self-control behavior leaves one with lowered self-regulatory resources. Once one's self-regulatory resources are lowered, it becomes more difficult to perform charitable behaviors. In one of their studies, the authors introduced a moderator to test this explanation. Specifically, they argued that consuming a calorie-dense beverage should restore one's self-regulatory resources, and thus attenuate the negative effect of self-control on charitable behavior. They test this mechanism in a study where half of all participants drank a glucose-sweetened beverage that was caloric, and the other half drank a beverage sweetened with Splenda (which contained no calories). It was argued that, because the glucose beverage contained calories, it would replenish participants' self-regulatory resources and facilitate charitable behavior. They found that the initial act of self-control (versus a control condition) didn't produce differences in charitable behavior if participants drank a glucose-sweetened beverage in between the two tasks. In the Splenda-sweetened condition, the original, negative effect of prior self-control charitable behavior persisted. As such, these authors

conclude that charitable behavior requires the expenditure of self-regulatory resources, and thence an initial act of self-control may thus reduce a person's capacity to act charitably.

However, a second study on this same factor and mechanism revealed exactly the opposite finding (Fennis et al. 2009). These authors found that the depletion of self-regulatory resources (achieved via the performance of self-control behaviors) actually *increased* charitable behavior. In their studies, these authors argue that charitable behavior is not directly governed by self-regulatory resources. Instead, they argue that self-regulatory resources affect information processing. Specifically, they argue that when self-regulatory resources are low, people are more likely to rely on simple decision-making heuristics, rather than deeper forms of information processing. So they expand on previous research by arguing that the effect of self-regulatory resources on charitable behavior takes places in two stages. The first stage, established by Dewall and colleagues (2008), is that self-control behavior reduces self-regulatory resources. The second stage, established in the present paper is that self-regulatory resources increase our reliance on heuristics during decision making. Specifically, the lower self-regulatory resources are, the more likely one is to rely on heuristic cues to guide behavior. Thus, they argue that initial self-control actually increases charitable behavior when the charitable request contains a heuristic cue.

To illustrate, I will describe one of their studies in some detail. This experiment had a 2 (initial self-control: absent vs. present) x 2 (Heuristic activation: reciprocity vs. no reciprocity) between subjects design. All participants were asked to read a page of text and cross out every instance of the letter *e*. After completing the first page, participants in the self-control absent condition were asked to continue crossing out *e*s on another page. Those in the self-control present condition were instructed to now change from crossing out every *e* to only crossing out

certain *e*s under certain conditions. Thus, these participants had to actively inhibit the response to cross out all *e*s, and were performing self-control. After this task, the reciprocity manipulation took place. Those in the reciprocity condition were told by the experimenter that she would do them a small favor by excusing them from the next (fictitious) task, which other participants had described as boring. Those in the no reciprocity condition were not told about the task at all. Finally, participants were asked how much time (0 to 240 minutes) they would be willing to volunteer for future studies in the same lab. The self-control task yielded no effect on charitable behavior when participants were in the no reciprocity condition. However, in the reciprocity condition, participants who had performed the self-control task donated significantly more minutes to the lab than those in the no self-control condition. Thus, the authors demonstrate that the effect of an initial act of self-control on charitable behavior depends on whether or not the charitable request is couched in a heuristic cue. In sum, the effect of prior self-control on charitable behavior appears to be driven not by self-regulatory resources alone, but by the relationship between self-regulatory resources and heuristic processing.

To summarize, DeWall and colleagues (2008) found that an act of self-control reduced charitable behavior, while Fennis and colleagues (2009) found that an act of self-control increased charitable behavior, but only when the charitable solicitation was consistent with an active heuristic. While these results appear contradictory at first, a key difference between the two papers explains their divergence. The key difference is that Fennis and colleagues (2009) argue that self-regulatory resources do not impact charitable behavior directly. Instead, self-regulatory resources affect how we process requests. Lower self-regulatory resources are associated with shallower processing via the use of heuristics. In other words, the lower one's self-regulatory resources, the more apt one is to rely on a readily available heuristic to make a

choice. In the DeWall and colleagues (2008) paper, heuristic cues were never present. As such, compliance with a charitable request was never aligned with the request. Conversely, Fennis and colleagues (2009) show that, when (and only when) the charitable request is consistent with a heuristic, an initial act of self-control increases charitable behavior. This section discussed the effect of prior self-control on charitable behavior. In the next section, I will discuss the literature on social distance and charitable behavior.

Social Distance

Social distance refers to the feelings of closeness between individuals (Small and Simonsohn 2008). For example, the social distance between two friends is quite small, whereas the social distance between two strangers is larger. Here, research has examined how social distance to a victim affects one's attitudes towards charities that serve victims of the same kind. This work has revealed that the closer one feels to a victim, the more charitably one behaves towards causes that serve victims suffering from the same thing. The authors argue that this is the case because the closer one feels to a given victim, the more one can sympathize with others who suffer from the same condition. Recall that the sympathy mechanism was discussed in the section on emotional expression. Essentially, the closer one gets to someone who suffers from a condition, the more one can understand what it is like to suffer from said condition. When one understands what it is like to suffer from said condition, the more concerned one is with the well-being of all victims that suffer from said condition. In the next section, I will discuss another individual factor: relatedness.

Need for Relatedness

Need for relatedness refers to the need to feel interconnected to people in one's life (Pavey, Greitemeyer, and Sparks 2011). Need for relatedness is one of the three basic psychological needs identified in self-determination theory. At any given moment, this need can be more or less salient. For example, a person may notice a group of friends enjoying lunch at a café, and this may bring about one's desire to feel interconnected to one's own friends. Research has shown that an active need for relatedness increases charitable behavior (Pavey et al. 2011). These authors found that priming relatedness (but not the other psychological needs of autonomy and competence) increased a large set of prosocial tendencies as well as charitable behavior. They argue that this is the case because helping evokes feelings of connectedness. Since feelings of connectedness alleviate the relatedness needs, heightening one's relatedness concerns increases the motivation to give. In other words, charitable behavior can operate as a way to satisfy one's need for relatedness. In the next section I will discuss another individual factor: emotional immediacy.

Emotional Immediacy

Emotional immediacy refers to the proximity, in time, of a given emotional experience (Huber et al. 2011). If you are presently experiencing anger, then the emotion immediacy of your anger is high. If you experienced anger yesterday, then the immediacy of that emotional episode is low. Research has shown that we tend to weight immediate emotions in decision making more strongly than we weight past or anticipated emotions. In the domain of charitable behavior, this has been shown to affect how people allocate money when they are giving to multiple charities at once. These authors had participants view four films describing four African humanitarian charities. They also had participants allocate $95 across the four charities. Thus, a perfectly even allocation would result in $23.75 to each charity. In the sequential condition, participants had to

decide how much to allocate at the end of each film. In other words, participants saw a film about charity A and then decided how much to allocate to charity A. Then, they saw a film about charity B and then decided how much to allocate to charity B, and so on. In the post hoc condition, participants saw all four videos back-to-back, and then decided how much to allocate to each charity. The film order was counterbalanced, and donations to charity were analyzed at the ordinal (rather than the charity) level. As such, emotional immediacy was uniform in the sequential condition (high for all charities), but asymmetric in the post-hoc conditions (highest for the most recently viewed charity). Consistent with their theory that potential donors weight immediate emotions more than past emotions, the authors found that the sequential strategy led people to give a disproportionate share to the first charity, and less to each subsequent charity. The post hoc strategy led to a disproportionate share given to the final charity in the set. These authors propose that emotion immediacy influences perceptions of deservingness. Specifically, the more recently a potential donor was exposed to an emotion-evoking appeal from a charity, the more deserving of aid they believe that charity to be. That covers the research on emotional immediacy in charitable behavior. The next section reviews the literature on social exclusion.

Social Exclusion

Social exclusion refers to a person's inability to participate in a social activity (Lee and Shrum 2012). For instance, the bouncer at a club may ignore you or explicitly reject your plea for entry. Research has shown that the effect of social exclusion on charitable behavior depends on the type of social exclusion. Specifically, these authors find that being rejected increases charitable behavior, while being ignored does not. Rejection involves being explicitly informed that one cannot partake, while being ignored involves simple having one's presence and/or desire to partake not be acknowledged. They argue that this result emerges because being ignored and

being rejected threaten different needs. Specifically, our need for relatedness (discussed earlier) is threatened by explicit rejection, while our need to feel efficacious is threated by being ignored. Consistent with the findings and theorizing of Pavey and colleagues (2011), the authors argue that prosocial behavior (in the form of charitable behavior) satisfies relatedness needs, while conspicuous consumption will satisfy efficacy needs. As such, the authors find that rejection increased charitable behavior, but being ignored did not. In the next section, I will review the literature on power distance.

Power Distance Belief

Power distance belief (PDB) refers to the extent to which individuals expect and accept differences in power and wealth (Winterich and Zhang 2014). Some cultures are characterized by their low average PDB, while other cultures are high on PDB. For example, in the United States, people tend to believe that they can ascend their own social class, a belief which reflects the low PDB of most US citizens. However, people within a single culture may vary on PDB. Moreover, PDB may be more or less salient within a single person over time. Research has shown that PDB decreases charitable behavior. Specifically, these authors find that country-level, individual-level, and temporary increases in PDB salience all predict lower levels of charitable behavior. The authors argue that this is the case because higher PDB results in lower perceived responsibility towards others. In other words, if one expects and accepts social stratification as it stands, then charitable behavior towards others might disrupt the established hierarchy within in which one lives. Since one has no desire to change the established hierarchy, one ought not donate. In the next section, I examine how self-construal affects charitable behavior.

Self-Construal

Self-construal refers to the extent to which one considers themselves separate from versus connected to others (Duclos and Barasch 2014). Self-construal ranges from independent to interdependent. Independents tend to define themselves in terms of personal traits (e.g., tall, strong, smart, etc.), whereas interdependents tend to define themselves in terms of relationships (e.g., mother, daughter, boss, etc.). Research has shown that the effect of self-construal on charitable behavior depends on recipient group membership. Specifically, these authors found that those with an independent self-construal donated the same amount to both in-group and out-group victims. Conversely, those with an interdependent self-construal donated more to in-group victims than out-group victims. The authors argue that this effect happens because independents and interdependents hold different beliefs about how happy they will be after helping others. Specifically, independents don't define themselves in terms of others. As such, they don't perceive any difference between helping in-group versus helping out-group members. Conversely, interdependents do define themselves in terms of others, and particularly others that they are close to. As such, interdependents are more likely to believe that helping will make them happier when that helping is directed towards in-group rather than out-group members. This section covered the literature on self-construal and charitable behavior. The authors found that the effect of self-construal on charitable behavior was moderated by victim group membership. In the next section I examine research on perceived need.

Perceived Need

Need has been defined as the gap between the current state of beneficiaries and their ideal state (Batson 1987; Bendapudi et al. 1996). These same authors have argued that an awareness of need is an essential precondition for charitable behavior. If a person is unaware that their help is required, they have no impetus to help in the first place. However, once a person is aware of

need, variance in the extent of need also drives charitable behavior (Wagner, Manning, and Donenfeld 1969; Hsee and Rottenstreich 2004; Cameron and Payne 2011). In this section of the paper, I will synthesize the literature on need and charitable giving.

One of the earliest papers in charitable behavior identified recipient need as an important factor (Wagner et al. 1969). In this paper, it is argued that people might be more motivated to give when the need of the recipient is high than when it is low. To test this, a sample of Navy enlisted males was told that a fellow navy man was in need of financial assistance. In the low need condition, they were told there was a chance that the navy man's fund would be a bit short this year, which is why they were seeking $25 donations to build up a reserve. In the high need condition, they were told that $1000 needed to be raised immediately to fly the wife and two sisters of a dying navy man to his bedside. This navy man was described as having 2 days to live, and as having sacrificed his life for his country. Not surprisingly, the latter description yielded more charitable behavior. Those in the low need condition gave significantly less than those in the high need condition. However, this experiment utilized a heavily confounded operationalization of need. For instance, the low need condition had an ambiguous, but apparently small donation goal ("a bit short") whereas the high need condition had a very specific and rather large donation goal ("$1000"). The high need condition contained more information about the recipient, and the time horizon for help was smaller. As such, it is not clear what components of the authors' operationalization are essential to manipulate need, and which are potential confounds. Moreover, these authors are explicitly exploratory in their approach. They do not hypothesize or test for any mediating mechanisms. However, more recent research on perceived need has made an effort to fill this explanatory gap.

Another approach to the study of need on charitable behavior operationalized need in terms of the number of beneficiaries (Hsee and Rottenstreich 2004). Specifically, these authors found that increasing the number of pandas in need of assistance increased the amount of money potential donors were willing to give to save them. Specifically, these authors found a linear effect of need on charitable behavior when participants were primed to think using calculations, but a curvilinear effect of need on charitable behavior when participants were primed to think using their feelings. The authors offer the novel insight that the use of feelings leads to 'scope insensitivity'—a tendency to evaluate things in a lump sum manner. This led people to give more money to two pandas than one panda, but not to give more money to five pandas than two pandas. In other words, people appeared to notice the distinction between one and many, but further variation in many did not affect charitable behavior. In contrast, evaluation via calculation encourages more deliberate strategies like "estimate the need-per-panda, then multiply by the number of pandas in need." As such, calculating via thoughts tends to produce a more linear relationship between need and charitable behavior. This led people to give more to two pandas than to one, but also to give more to five pandas than to two.

While the literature on need suggests, overall, a positive effect of need on charitable behavior, this is not always the case. I will turn now to a popular area of research which has found precisely the opposite: that donors give more to single, identifiable victims than to massive throngs of victims (where need is certainly higher).

Chronicity of Suffering

Chronicity of suffering refers to the onset of a victim's suffering (Small 2010). If a victim's condition has been present for a long time, it is a chronic condition. If a victim's current condition is a result of a recent change, it is a sudden condition. For example, hunger can be an

chronic symptom of poor infrastructure (as in North Korea and Zimbabwe) or the result of a seasonal drought or natural disaster. Research has shown that charitable behavior is higher in response to sudden, rather than chronic victims (Small 2010). The author argues that this is the case because potential donors judge suffering in a reference-dependent manner. Specifically, potential donors reported thinking that a blind person is suffering more if they have become blind in their lifetime (sudden) than if they were born blind (chronic). This effect generalized to a situation where participants were randomly given either $10 (donors) or $0 (victims). In the chronic victim condition, the victims were simply told they would receive no money. In the sudden victim condition, everyone received $10 in tokens, and then half of the participants were assigned as victims and their money was revoked. Then, donors were asked how much they would like to give to victims. Donors gave more to sudden victims (who had had the money removed from their possession) than to chronic victims (who never had the money in the first place). That covers the research on chronic vs. sudden victims. In the next section I will discuss mortality salience.

Mortality Salience

Mortality salience refers to the extent to which a person is aware of the inevitability of their death (Ferraro, Shiv, and Bettman 2005). For example, walking past a graveyard or hearing about a terrorist attack in the news can direct peoples' attention to the reality of death, especially their own. Research has shown that mortality salience increases charitable behavior, but only among people who see virtue as a source of self-esteem. Specifically, these authors argue that mortality salience arouses existential anxiety. Existential anxiety involves a fear that one's life is pointless or meaningless. To eliminate the feeling that one's life is pointless or meaningless, one can bolster one's self-esteem. Self-esteem refers to one's evaluation of one's own worth. For

people who view virtuosity as a source of self-worth, mortality salience motivates them to bolster their self-esteem by doing something virtuous. However, for those who do not view virtue as a source of self-esteem, mortality salience yielded no effect on their charitable behavior.

The effect of mortality salience on charitable behavior has also been shown to depend on the type of appeal the charity employs. Specifically, when mortality salience is high, bandwagon charitable appeals are more effective at generating charitable behavior. However, when mortality salience is low, need-based appeals generate more charitable behavior (Cai and Wyer 2014). The authors argue that in general, people believe that they should give in proportion to the amount needed. As such, they argue that when mortality salience is low, need-based appeals ought to be more effective than bandwagon appeals. However, when mortality salience is high, people seek ways of coping with existential anxiety (as discussed in the previous paragraph). In the previous paragraph, the authors argued that bolstering self-esteem is one way that consumers can cope with existential anxiety. In the present research, the authors argue that another way of coping is to reaffirm one's cultural worldview. In other words, if one becomes anxious about the meaning and importance of life, one will seek out information which affirms their worldview to alleviate this anxiety. One such piece of information is normative information. Thus, the authors find that mortality salience increased charitable behavior in response to bandwagon appeals. They argue that mortality salience increases the reliance on others' behavior in judging the deservingness of the charity. Deservingness was discussed previously, in the section on emotional immediacy. Thus, the authors argue that morality salience increases the perceived deservingness of victims in a bandwagon charitable appeal. Finally, the favorability of similar others should increase the effectiveness of bandwagon appeals (versus need appeals, which contain no information about others' behavior).

This section has reviewed the literature on the antecedents of charitable behavior. I categorized antecedent factors into two broad groups: appeal factors and individual factors.Now, I move on to discuss the consequences of charitable behavior for donors. As such, it constitutes a particularly exciting place to look for future research on charitable behavior.

CONSEQUENCES OF CHARITABLE BEHAVIOR

This section reviews the literature on the consequences of charitable behavior. Specifically, I identify three key consequences of charitable behavior; psychological well-being, prosocial behavior, and escalation of commitment. I now review each of these factors in the sections below.

Subjective Well-Being

Subjective well-being refers to one's evaluation of one's own life (Dunn, Aknin, and Norton 2008; Aknin et al. 2011; Aknin, Dunn, and Norton 2012; Aknin et al. 2013). When one has a positive evaluation of one's own life, subjective well-being is high. When one has a negative evaluation of one's own life, subjective well-being is low. Many authors explicitly conceptualize subjective well-being as having both affective and cognitive components. To capture subjective well-being in both of these domains, researchers often measure happiness, life satisfaction, or both.

Spending money on others, both in the form of gift-giving and charitable behavior, has been shown to increase well-being (Dunn et al. 2008). Specifically, these authors surveyed participants and found that both income and prosocial spending were significantly correlated to happiness. Interestingly they found that personal spending—the number of dollars spent on oneself—was not correlated to happiness. In order to test the causal nature of their predictions,

the authors conducted two additional studies. In the first of these, they measured employees' happiness at two times: a month before they had received a bonus, and approximately six weeks after they received it. The authors asked each employee how much of the bonus they had spent on purchases for others versus themselves. This measure was significantly correlated to their positive change in happiness from before to after the bonus. Finally, the authors further support the causality of this relationship in a lab experiment. Participants in the experiment rated their happiness at the beginning of the day. Then, they were randomly assigned to spend either $5 or $20 dollars (provided by the experimenters) in that same day. Half of all participants were instructed to spend the money on themselves, and the other half was instructed to spend the money on someone else (either a gift or a donation). At the end of the day, participants were asked to rate their happiness again. The authors found that those who spent the money on others were significantly happier at the end of the day than those who spent the money on themselves. Moreover, those who spent $20 on others were happier than those who spent $5. Additional articles have examined the generalizability of this effect, as well as its boundary conditions.

Does charitable behavior lead to well-being in all cases, or is this effect limited to relatively wealthy countries where most people can afford to spend on others? Research has shown that the effect of prosocial spending (including charitable behavior) on happiness also emerges in relatively poorer countries (Aknin et al. 2013). Specifically, these authors used data from the Gallup World Poll (GWP), which included measures of prosocial spending, and subjective well-being. Prosocial spending was measured by asking respondents whether or not they had donated to charity in the last six months. Well-being was measured using two items. The first item was a Cantril ladder, which asked participants to imagine a ladder with 11 steps (from 0, *worst possible life*, to 10, *best possible life*), and report which step offered the best

representation of their life. The second item asked participants to simply report how satisfied they were with their lives (0 for *dissatisfied* and 10 for *satisfied*). One-hundred and thirty six countries were sampled in the GWP. For each country, the correlation coefficient between prosocial spending and subjective well-being was calculated. Then, the authors correlated these coefficients to the income of the country. Importantly, they found that the effect of charitable behavior on subjective well-being was uncorrelated to income. The authors further supported this finding using a cross-cultural experimental method. Specifically, the researchers approached people in Canada or in Uganda and asked them to recall a recent $20 purchase. Half of those approached were instructed to consider a purchase they made for themselves, and the other half were instructed to consider a purchase they made for someone else. Participants were asked to describe the experience in order relive the feelings associated with it. Then, participants were asked to rate their happiness. Participants who recalled spending on someone else reported greater happiness in both Canada and Uganda. Importantly, the effect of prosocial spending on happiness was not different in Canadian vs. Ugandan sample. To further demonstrate the cross-cultural generalizability of this finding, the authors proceeded to replicate this effect in an Indian sample and in a comparison of Canadians to South Africans. They found that the effect of prosocial behavior on subjective well-being persists despite otherwise drastic cultural difference in income, religion, culture, and politics.

However, the effect of prosocial spending on happiness is subject to certain boundary conditions. Research on this effect has shown that the amount of happiness generated by prosocial spending depends on the social tie strength one shares with the spending target (Aknin et al. 2011). Social tie strength refers to the frequency, emotional intensity, and intimacy of contact between people. Weak social ties are characterized by infrequent, emotionally bland

interactions, whereas strong social ties are characterized by the opposite. Specifically, participants were asked to recall a time when they spent approximately $20 on either a strong tie or a weak tie. Then, participants rated their happiness on the Positive and Negative Affect Schedule (PANAS). Results showed that participants who recalled spending on a strong tie were happier than those who recalled spending on a weak tie.

Finally, research on the effect of prosocial spending on happiness has shown that relationship between prosocial spending and happiness is bidirectional (Harbaugh et al. 2007; Aknin et al. 2012). In other words, prosocial spending increases happiness, and happiness increases prosocial spending. As such, prosocial spending and happiness exist in a positive feedback loop. This bidirectional effect has been demonstrated using both subjective self-reports of happiness (Aknin et al. 2012), as well as neural activity during donation (Harbaugh et al. 2007). In the Aknin et al. (2012) paper, the authors simply asked participants to recall a time they had either spent $20 on themselves, or someone else. Those who had been asked to recall spending on someone else subsequently reported greater happiness, and were subsequently more likely to spend a windfall on others. While this paper suggest that donations to charity might also beget future donations to charity, they only test their framework in a prosocial spending context (e.g. buying a meal or a gift for a friend or acquaintance). However, other research has examined the effect of charitable behavior on the neural activity of reward-processing areas in the brain. A curious feature about this body of work is that the authors do not argue for a mechanism by which prosocial spending affects psychological well-being. In all of the work cited above, mediators of the effect of prosocial spending on happiness were never tested. However, a different group of researchers have collected neurological evidence to help explain the link between prosocial spending and psychological well-being.

Harbaugh et al. (2007) investigated the neural correlates of charitable behavior using functional magnetic resonance imaging (fMRI). In their experiment, the authors investigate the effect of mandatory versus voluntary transfers to charity on neural activity in areas of the brain associated with reward processing. Participants played a dictator game while their brains were scanned in an fMRI machine. Participants were compensated with $100, but were told that the experiment would involve a game where participants would transfer some of this money to a local food shelter. Some of these transfers were voluntary (the participant could accept or reject the proposed transfer), and some of these transfers were mandatory (the participant could only 'acknowledge' that money had been transferred from their account to the charity's). Once the experiment began, participants were shown several trials. Each trial contained two numbers: the amount change to the participant's account (e.g. -$15), and the amount change to the charity's account (e.g. +$15). As a measure of subjective experience, participants were also asked to indicate how satisfied they were with each trial. The authors found that both subjective satisfaction and objective reward-related neural activity were positively related to the amount of money transferred to the charity in both mandatory and voluntary transfers. Furthermore, both subjective satisfaction and objective neural activity were higher for voluntary transactions than mandatory transactions for all amounts tested. So the authors were able to extend prior work on the effect of charitable giving on happiness by demonstrating the effect at the level of the brain. However, the authors also predicted the opposite causal model: Specifically, that neural response to charity should be positively linked to voluntary donations to charity.

To test for the bidirectionality of this effect, the authors included 'pure subject gain' trials, and 'pure charity gain' trials. In a pure subject gain trial, the amount change to the participants account was positive, and the amount change to the charity's account was zero. In

other words, the participant simply got money, and the charity did not. In a pure charity gain trial, the amount change to the participants account was zero, while the amount change to the charity's account was positive. In other words, the charity got money, but the participant didn't gain or lose money. The authors measured neural activation to both types of trials, and then subtracted activation to pure charity gain from activation to pure subject gains. This provided them with a measure of reward sensitivity to gains-to-self versus gains-to-charity for each subject. High scores on this measure indicate that one feels more reward when a charity gains money than when the self does. Low scores on this measure indicate that one feels more reward when the self gains money than when a charity does. They found that this measure correlated to participants' rate of accepting voluntary transfer offers. In other words, participants that exhibited the strongest reward signal in response to charity gains (versus self-gains) were the most likely donate to charity. That covers the literature on one consequence of charitable behavior: happiness. In the next section, I will discuss another consequence of charitable behavior: licensing.

Prosocial Behavior

As mentioned earlier in this paper, prosocial behavior refers to behavior which is intended to help others (Batson 1987). For example, helping a fellow student understand a lecture and holding a door open are both forms of prosocial behavior. Research has shown that the effect of an initial charitable behavior on prosocial behavior depends on the costliness of the initial charitable behavior (Gneezy et al. 2012). These authors found that when an initial charitable behavior was costless (e.g. a donation made on one's behalf, at no cost to oneself), then subsequent prosocial behavior was reduced. However, if the initial charitable behavior was costly (e.g. a donation made from one's own pocket), then subsequent prosocial behavior was

increased. The authors argued that an initial prosocial act (e.g. charitable behavior) only begets future prosocial behavior when it affects one's prosocial identity. Specifically, when the initial charitable act is costless, it will not affect the person's prosocial identity. In other words, if a prosocial act is very easy to do, it does not inform the actor about what sort of person they are. However, when the initial prosocial act is costly, it will increase the person's moral identity. The authors argue that costly behaviors are more informative of one's overall self-concept than costless behaviors. Thus, costly charitable behavior updates one's prosocial identity, increasing the amount one gives in the future. Conversely, if no update is registered (i.e. the initial act is costless), then the likelihood of future prosocial behavior is reduced.

To test their predictions, the authors ran a lab and a field experiment. The lab experiment captures all the components of their theorizing, so I will discuss it here. In their experiment, participants were given $5 for agreeing to participate. Then, participants were randomly assigned to either a control, costless donation, or a costly donation condition. In the control condition, participants were simply given their $5 upfront. In the costly donation condition, participants were told that $2 would be subtracted from their pay and donated to a charity. In the costless donation condition, they were told that $2 would be donated to charity in their name, but that it would have no effect on their pay. Then, participants completed a task where they had a monetary incentive to send a deceptive message to a second student in another class. In other words, they could lie to another real student to earn more money for themselves, or tell the truth to earn less. Rate of truth-telling was taken as a measure of prosocial behavior. Finally, all participants were asked to fill out a measure of prosocial identity. The authors found that those in the costly charitable behavior condition were more honest (72%) than those in the control (52%) or costless (30%) conditions. Moreover, mediation analysis revealed that the effect of costly

prosocial behavior (vs. control) on lying was mediated by prosocial identity. However, prosocial identity did not mediate the difference between the control and costless charitable behavior groups. In the next section I will discuss the final factor in the review section of this paper: Escalation of commitment.

Escalation of Commitment

Escalation of commitment refers to the investment of resources into failing courses of action (Schaumberg and Wiltermuth 2014). For example, a restaurant owner may find that his new restaurant was not profitable in its first year of operation. Thus, the restaurant is failing. The investor can spend money on the restaurant to try to improve it, or he can shut the restaurant down. If he invests money in the restaurant, he is escalating his commitment to the restaurant. Research has shown that when a course of action is charitable (versus self-interested), the tendency to escalate commitment is increased (Schaumberg and Wiltermuth 2014). Specifically, these authors asked participants to solve as many of ten anagrams as fast as they could, but they were allowed to quit at any time. Participants were shown a table that listed payouts they would receive as a function of both the amount of time they spent working on the task and whether or not they solved at least eight of the ten anagrams. In the self-interested condition, the payouts were given directly to participants. In the charity condition, the payouts were donated to charity. Naturally, one might think that participants will be more motivated to earn money for themselves that for a charity, and this might contaminate their effects. To control for this, the experimenters included a third condition where participants and charities both received the payoff. The payoff structure was as follows: if a person solved at least eight of the ten anagrams within three minutes, they and/or their charity received $8, but if they quit within three minutes, and solved less than eight of the anagrams, they and/or their charity only received $3. Payouts decreased the

longer the participant took. However, at five minutes, the payoff to those with eight or more anagrams solved was equal to the payoff with those who completed less than eight ($2.10 in both cases). At six minutes, participants who quit with less than eight anagrams solved earned *more* ($1.80) than those who completed eight or more anagrams ($1.60). As such, it was always outcome-maximizing (for the self and/or the charity) to quit before the sixth minute. The proportion of participants who exceeded six minutes was taken as the measure of escalation of commitment.

The authors found that significantly more participants escalated commitment in the charity conditions than in the self condition. Importantly, there was no difference between the charity condition and the self-and-charity condition, suggesting performance had to do with the presence of a prosocial objective, rather than the absence of self-interest. The authors argue that this effect emerged because adding a charitable payout increased participants' desire for positive moral self-regard. Moral self-regard refers to the extent to which a person believes they possess desirable moral traits. The authors argue that people believe effort matters more than outcomes when it comes to moral self-regard. As such, adding a prosocial objective to the task made participants less outcome-oriented, and more effort-oriented, which is why they persisted at the task beyond the six-minute marker. That concludes the research on charitable behavior and the escalation of commitment

This concludes the review of previous literature on charitable behavior. The sections above have categorized the literature into antecedents and consequences of charitable behavior. Within antecedents, I examined both appeal-based factors that charities can immediately deploy, as well as individual difference factors that drive charitable behavior at the level of the individual. Within consequences, I reviewed literature showing that charitable behavior can lead

to personally and socially desirable outcomes like happiness and honesty, but that costless forms of charitable behavior reduces honesty, and might reduce other forms of moral behavior as well. Now I turn to future research on charitable behavior.

FUTURE RESEARCH

Thus far I have reviewed key findings on charitable behavior in marketing, consumer behavior, and psychology. I organized the literature according to antecedents and consequences of charitable behavior. In the following sections, I seek to extend the literature on charitable behavior by identifying three promising directions for future research. The first future research project extends the literature on antecedents, while the second future research project extends the literature on the consequences of charitable behavior. Finally, the third future research project investigates how a lay belief—the belief in free will—affects charitable behavior in a surprisingly opposite way from what previous research suggests. That project is explicated in full in the second essay of this dissertation.

Future Research on Antecedents

Charitable appeals can be delivered to consumers through different media such as print, television, and internet. In each of these media, charitable appeals can be encountered in the context of surrounding content such as a newspaper article, a television show, or a website. This content could vary in terms of the presence or absence of moral violations, defined as unjustified failures to comply with moral norms (Rozin et al. 1999; Chapman et al. 2009; Chan et al. 2014). Moral norms vary somewhat from culture to culture, but many cultures have moral norms against lying, cheating, physical harm, murder, stealing and incest (Rozin et al. 1999; Tybur, Lieberman, and Griskevicius 2009; Anik et al. 2014). Moral violations of such norms occur frequently in the context in which charitable appeals are seen. For example, the moral norm of

avoiding incest is violated in the television show *Game of Thrones,* wherein two of the main characters are a brother and sister who have sex with each other. From non-fictional media, the moral norm against murder was recently broken by a Germanwings flight 9525 co-pilot who intentionally flew a plane into a mountain, killing himself and all 150 passengers. Thus moral violations appear to be quite prevalent in media. This proposal asks the question: Do moral violations in the context of charitable appeals influence charitable behavior of prospective donors?

To understand how moral violations could influence charitable behavior, I build on research suggesting that moral violations can elicit anger and disgust (Hutcherson and Gross 2011). Anger is defined as "a negative emotion that emerges when a personally relevant event is incongruent with an individual's needs and results from someone else's actions" (Hutcherson and Gross 2011; Ellingson, Heggestad, and Makarius 2012). Disgust is a negative emotion that emerges when something in the environment is perceived as potentially harmful to the self (Tybur et al. 2009; Hutcherson and Gross 2011; Chan et al. 2014). It is important to note that disgust is broad. Here, the emphasis is on the sense of revulsion one feels towards the behavior of others, rather than feeling "grossed out" by rotten food. So when does a moral violation elicit anger, and when does it activate disgust? Hutcherson and Gross (2011) argue that the self-relevance of moral violations determines whether they activate anger or disgust. Self-relevance simply refers to the extent to which a moral violation could affect the self or the self's in-groups (Hutcherson and Gross 2011). To test for the effect of self-relevance on disgust and anger, these authors asked participants to read nine short moral violation items (e.g. "a boy steals a student's bike and then is heard bragging about it later"). For each item, participants were asked to circle one of six listed emotions that best described their feelings (*anger, moral disgust, sadness,*

fear/anxiety, grossed out), and to rate the intensity with which they felt each emotion from 0 (*not at all*) to 6 (*extremely*). The authors used 'moral disgust' and 'grossed out' to help respondents differentiate between revulsion towards the behavior of others and revulsion towards rotting food. To test for the effect of self-relevance, the authors had low self-relevance and high self-relevance versions of the survey. In the low self-relevance version, all of the moral violation items were written as if they were happening to an anonymous other. However, in the high self-relevance version, the moral violation items were written as if they were happening to the participant. For example, in the low self-relevance condition, one item read "A student steals another student's exam and copies it." In the high self-relevance condition, this item was re-worded as "A student steals your exam and copies it." These authors found that when a moral violation was highly self-relevant, people were more likely to report feeling anger than disgust. However, when the same moral violation was not self-relevant, participants were more likely to report feeling disgusted rather than angry. The authors argued that this pattern of results is consistent with a socio-functional theory of emotions. Specifically, if a moral violation poses a clear threat to oneself, becoming angry is adaptive. It is adaptive because it protects the self from harm by addressing genuine threats to the self head-on. However, if a moral violation poses no clear threat to the self, becoming angry is a waste of energy. A more adaptive response is to become disgusted with the irrelevant violator. Disgust is adaptive here because it protects the self from harm by motivating the avoidance of a possible threat.

To summarize, past research has shown that when the self-relevance of a moral violation is low, moral violations elicit disgust more than anger. However, when the self-relevance of a moral violation is high, moral violations elicit more anger than disgust (Hutcherson and Gross 2011). I plan to extend this work by investigating how moral violations and their emotional

consequences impact charitable behavior. Consistent with prior research, I anticipate that consumers who encounter moral violations in the media will feel either anger or disgust, depending on how self-relevant the moral violation is. Expanding on prior research, I argue that these emotions have unique implications for charitable behavior. Specifically, I will argue that anger will increase charitable behavior, whereas disgust will suppress it.

As reported in prior research, when a moral violation is self-relevant, the moral violation is likely to produce anger. For example, the news of Germanwings flight 9525 is more likely to anger Germans (for whom it is self-relevant) than Canadians. Past research suggests that anger induces an approach motivation whereby individuals process environmental information in depth in an effort to address the underlying threat (Nabi 1999). I argue that this increased depth of processing could spill over from the moral violation content to the accompanying charitable appeal. Increased depth of processing, in turn, should increase the impact of central message arguments in the appeal leading to greater persuasiveness of the charitable appeal (Maheswaran and Chaiken 1991; Jain and Maheswaran 2000). Conversely, when a moral violation is low in self-relevance, the past research reviewed above suggests that moral violations would primarily generate feelings of disgust. For example, the news of Germanwings flight 9525 is more likely to disgust Canadians (for whom the event is low in self-relevance) than Germans. Past research suggests that disgust induces an avoidance motivation where individuals seek to reduce their depth of processing of the disgusting stimulus (Nabi 1999). I argue that this decreased depth of processing could spill over from the moral violation to the accompanying charitable appeal and hence reduce persuasiveness of the charitable appeal (Maheswaran and Chaiken 1991; Jain and Maheswaran 2000). These arguments are formalized in the hypotheses below and shown visually in figure 2.

INSERT FIGURE 2 ABOUT HERE

H1: Moral violation interacts with self-relevance to influence charitable behavior such that:

a) The presence (versus absence) of a moral violation reduces charitable behavior when self-relevance is low.
b) The presence (versus absence) of a moral violation increases charitable behavior when self-relevance is high.

H2: The effect of moral violation on charitable behavior described in H1a will be mediated by disgust

H3: The effect of moral violation on charitable behavior described in H1b will be mediated by anger.

Note that it is possible for self-relevance to have a main effect on charitable behavior in this context. Specifically, it could be the case that when potential donors see a stimulus which is low in self-relevance, they might experience a reduction in depth of processing and hence reduction in charitable behavior. Conversely, when they see a stimulus which is high in self-relevance, they might experience an increase in depth of processing and hence charitable behavior. This main effect of self-relevance, however, is not the focus of my research; instead the intended contribution of my research is to demonstrate the interaction effect of self-relevance and moral violations on charitable behavior.

I now outline a study that could be conducted to test H1-H3. This study would be designed as a 2 (moral violation: absent vs. present) x 2 (self-relevance: low vs. high) between-subjects ANOVA. Two-hundred undergraduate Canadian students would be recruited for this study from introductory marketing courses, and offered $5 for their participation. As a cover story, participants would be told that the study is being conducted to understand students' emotional responses to standardized entrance exams. Consistent with the cover story, participants would be asked to read a news article about standardized entrance exams which manipulated moral violation and self-relevance.

Moral violation was manipulated by either presenting participants with an article which described the content and purpose of standardized entrance exams, or an article which described how students cheat on standardized entrance exams. The former article should contain no unjustified failures to comply with moral norms and thence serves as the moral violation absent condition. The latter article will explicitly highlight the unjustified failure to comply with the moral norm against cheating. Specifically, the article will claim that every cheating student granted entry to a program represents one honest student who did not gain entry to the same program. As such, this article would serve as the moral violation present condition. This type of manipulation is similar to those used in previous research on moral violations (Chan et al. 2014). Moreover, this manipulation would be checked using a measure of perceived immorality, which I describe later in the procedure, when it is measured.

Self-relevance would be manipulated by changing the country in which the exams were being conducted. In the low self-relevance condition, the exams would be conducted in Brazil. Since events occurring in Brazil have no direct impact on students in Canada, this should serve as an effective low self-relevance condition. In the high self-relevance condition, the exams

would be conducted in Canada. Since events occurring in Canada have the potential to impact students in Canada, this should serve as an effective high self-relevance condition. This manipulation is similar to the one used by Hutcherson and Gross (2011). Moreover, this manipulation will be checked using a measure of self-relevance which I will describe later in the procedure, when it is measured.

After reading the news article, participants would be asked to respond to several filler items designed to be consistent with the cover story. Embedded within these filler items would be the Differential Emotions Scale (DES). The DES is a thirty-item scale containing three items to measure each of 10 emotions, including anger and disgust (Izard 1993). To confirm that the manipulation of moral violation is successful, participants would be asked to indicate how immoral they found the content of the news article they read (1 = not at all, 7 = very much) (Chan et al. 2014). To insure that the manipulation of self-relevance was successful, participants will be asked to indicate the extent to which they felt that the events described in the news article could directly affect them (1 = not at all, 7 = very much) (Hutcherson and Gross 2011). At this point the experiment would ostensibly be over. Participants would be thanked and given an envelope with five $1 coins, as promised. However, this envelope would also contain a letter from the United Way – Canada. The letter would explain the mission of the charity ("To create opportunities for a better life for everyone in our communities"). At the end of the flyer, the following instructions would be written: "Please consider making a donation to the United Way – Canada. If you would like to donate, please leave your donation in the envelope provided by the experimenter." Participants would be free to take all $5, or leave any of the dollars in the envelope (Lee and Shrum 2012). These envelopes would be collected at the end of class.

Data acquired through the experiment outlined above could be analyzed in the following way. To confirm that manipulations were successful, manipulation checks would be performed first. To confirm that the moral violation conditions were perceived as more immoral than the control, ratings of immorality would be compared across all four groups using ANOVA. It is expected that participants would rate the content of the non-moral-violation news articles as less immoral than the two moral violation present conditions. To confirm that the manipulation of moral violation didn't vary in strength, one could also run a t-test to compare the mean rating of immorality in the low self-threat moral violation condition to the mean rating of immorality in the high self-threat moral violation condition. One would expect to find no significant difference there. In order to confirm that the manipulation of self-threat worked, ratings of self-relevance across the low self-relevance and high self-relevance conditions will be compared using a t-test. I expect that those in the high self-relevance condition will rate the content of the news article as more relevant to themselves than those in the low self-threat condition.

In order to test for the interaction specified in H1, an ANOVA would be conducted with moral violation, self-relevance, and their interaction term as the independent variables, and donation amount as the dependent variable. A routine check for main effects of moral violation and self-relevance will be conducted, but neither main effect is expected. However, the interaction of moral violation and self-relevance is expected to produce a significant effect. To confirm that this interaction effect is directionally consistent with H1a and H1b, planned contrasts should reveal that when self-relevance is low, the mean donation in the moral violation absent condition should be significantly higher than the mean donation in the moral violation present condition. However, when self-relevance is high, the mean donation in the moral violation absent condition should be significantly lower than the mean donation in the moral

violation present condition. In order to test for the mediations proposed in H2 and H3, a bootstrapped parallel moderated mediation model will be tested with disgust and anger used as multiple mediators (model 8 of PROCESS, Hayes 2013). Specifically, this analysis will estimate a regression model by resampling the original data set 5000 times. Support for H2 will be obtained if a negative indirect effect of moral violation on charitable behavior through disgust (but not anger) is observed when self-relevance is low. Support for H3 will be obtained if a positive indirect effect of moral violation on charitable behavior through anger (but not disgust) is observed when self-relevance is high. For this analysis, an effect is observed if the confidence interval of the coefficient of the indirect effect does not include zero.

This study is likely to make two theoretical contributions to the literature on charitable behavior. First, this research would be the first demonstration that moral violations interact with self-relevance to influence charitable behavior. Second, this research would be the first to show that the interactive effect of moral violation and self-relevance on charitable behavior is mediated by anger and disgust. This research can also be useful to managers of charitable organizations. If the hypothesized interaction of moral violation and self-relevance is confirmed, managers could improve the effectiveness of their advertising strategies by placing their ads near moral violation content that is likely to be self-relevant to the audience, and away from moral violation content that is not likely not self-relevant. That concludes my proposal for future research on the antecedents of charitable behavior. In the next section of this paper, I discuss a future research idea on the consequences of charitable behavior.

Future Research on Consequences

In this section of the paper, I outline a project that contributes to the literature on the consequences of charitable behavior. Charities often have contact information of those who have

donated in the past. This is because donors often fill out identification forms for credit cards or for tax deduction purposes. Charities can use this contact list of prior donors to solicit future donations. In these follow-up solicitations, charities could mention the amount given previously by the donor. For example, the charity may send a letter that says "Dear donor, we wanted to thank your for your $X contribution last year, and we hope you'll consider donating again this year." For some donors, $X could be somewhat small (e.g. $5), but for others, $X could be somewhat large (e.g. $100). In this project, I focus on previous donation amount, which I formally define as the magnitude of a charitable contribution that a person has made in the past. Previous donation amount can take any positive, non-zero value, but I will be focusing my attention on previous donation amounts that are relatively small (e.g. $5) versus those that are relatively large (e.g. $100). The question in the present research is what is the effect of previous donation amount on subsequent charitable behavior? Subsequent charitable behavior refers to the intent or act of donating resources to an organization that helps others, contingent on one having given to that same organization in the past. Previous research on charitable behavior has mostly examined single-shot donations. For example, participants in an experiment are shown one version of a charitable appeal and asked to donate just once. Thus, there exists a gap in what we know about sequential giving. I attempt to contribute to this gap by examining how previous donation amount influences subsequent charitable behavior. Practically speaking, subsequent charitable behavior is an important topic for charities for two major reasons. First, increasing subsequent donations from prior donors leads to greater overall revenue. Second, subsequent donations to a charity are the charitable equivalent of customer loyalty. Customer loyalty increases the reliability of cash flows to the firm (Gruca and Rego 2005). In other words,

maximizing subsequent charitable behavior reduces revenue variability, enabling a charity to grow more reliably.

Previous research on moral licensing suggests that self-perceptions could play a role in how previous donation amounts influence subsequent charitable behavior. As mentioned earlier in this paper, moral licensing refers to contexts where an initial good behavior (e.g. a donation to charity) provides someone with a brief boost to their self-concept. This boost to self-concept then allows a person to make a subsequent choice which, under normal circumstances, might hurt their self-concept (e.g. refusing a second request for donations). In the present context, moral licensing would argue that the larger a previous donation was, the greater the likelihood of rejecting a subsequent donation request. However, moral licensing has been qualified by two relevant moderating factors in previous research: temporal distance (Conway and Peetz 2012) and the costliness of the initial moral behavior (Gneezy et al. 2012).

Temporal distance, as discussed earlier in this paper, refers to the how far away in time an event is (Conway and Peetz 2012). In the context of moral licensing, research has shown that when the initial moral behavior is temporally close (i.e. happened recently), licensing emerges. However, when the initial moral behavior is temporally far (i.e. happened a month ago), the licensing effect reverses. In other words, when a person considers a moral event that took place months (rather than minutes) ago, their subsequent behavior is more (rather than less) likely to be moral. This is because people consider temporally distant events abstractly. This abstract construal leads people to believe that they did the initial moral action because of their innate disposition to be kind. However, when the initial moral act took place in the recent past, people consider it with a more concrete construal. This concrete construal leads them to believe that they performed the initial moral action for more circumstantial, practical reasons. In this case,

participants do not interpret the initial moral act as diagnostic of themselves. Thus, it is only when the initial moral behavior is recent that it produces a licensing effect. When the initial moral behavior occurred in the distant past, people think that the moral behavior is more descriptive of who they are, and the moral licensing effect reverses. Thus, the first reason that I do not suspect moral licensing to apply to the context of previous donation amount and subsequent charitable behavior is because the initial moral behavior in this context is because follow-up solicitations from charities tend to be spaced out distantly over time. Specifically, in a study of mailout frequency, the average time between mailers was around 3.5 months (Diepen et al. 2009). Thus, the innately lengthy temporal distance between charity solicitations provides the first reason to doubt that moral licensing will emerge in the present context.

The second qualification of moral licensing comes from research showing that moral licensing only holds when the initial moral behavior is costless (Gneezy et al. 2012). When the initial moral behavior is costly, subsequent behavior is more likely to be moral. These authors argue for a very similar mechanism to that of Conway and Peetz (2012). Specifically, Gneezy and colleagues (2012) argue that only costly actions are perceived as self-diagnostic. In other words, if an action is trivially simple to perform, it does not convey much information to the actor about who they are. If the action doesn't convey much information about who they are, they will not update their beliefs about their own identity. Conversely, if an action requires a loss of resources, then the action conveys greater information about who the actor is, and thence impacts their identity. As such, these authors find that an initial moral behavior will lead to licensing if it is costless, but not if it is costly. The authors operationalize costliness in the following way. Subjects in the costless condition received $5 for participating, and were told that an additional $2 had been donated to a charity on behalf of the participant. In the costly

condition, participants were given $3 for participating and were told that $2 had been subtracted from their pay and donated to charity. Subsequently, those in the costless condition were more likely to lie for their own benefit than those in the costly condition. Importantly, a mere $2 was all it took to manipulate costliness successfully in this experiment. This suggests that costliness is a matter of presence rather than scope. Thus, the second reason I do not expect moral licensing to apply to the present context is that real prior donors incur real monetary costs. Therefore, there are two reasons to doubt the role of moral licensing as a mechanism between previous donation amount and subsequent charitable behavior. Instead, I offer a different account.

I argue that prior donors will use their previous donation amount as a heuristic cue for evaluating the charity a second time. This mechanism is distinct from the mechanisms discussed above because it does not tap into the identity of the donor. In other words, previous research has examined this question: What does a previous donation tell a donor about themselves? In the present context, I examine a different question: What does a previous donation tell a donor about the charity? Specifically, when a previous donation amount is low, I argue that consumers will infer that they did not value the charity highly when they gave to them in the past. When a consumer infers that they didn't value the charity highly in the past, they will not evaluate the charity highly in the present. Low charity evaluation results in low subsequent charitable behavior. Conversely, when a previous donation was large, consumers are likely to infer that they evaluated the charity highly in the past. When consumers infer that they evaluated the charity highly in the past, they will evaluate the charity highly in the present. High charity evaluation should result in higher subsequent charitable behavior. This approach is consistent with literature which has showed that consumers use price as a cue to gauge quality (Shiv, Carmon, and Ariely 2005; Yan and Sengupta 2011; de Langhe et al. 2014). Specifically, this

research has shown that consumers infer that the price of a product is positively related to its quality. In the present context, I am arguing that a previous donation amount serves as a signal of charity quality simply by operating as a signal of one's prior evaluation of that charity. For a conceptual model of the effect of previous donation amount on subsequent charitable behavior, please refer to figure 3.

INSERT FIGURE 3 ABOUT HERE

H1: Prior donation amount has a positive effect on subsequent charitable behavior.

H2: The effect of prior donation amount on subsequent charitable behavior is mediated by evaluation of the charity.

To test these hypotheses I plan to recruit 200 subjects from Amazon Mechanical Turk and run a single-factor (Previous donation amount: low versus high), between-subjects design experiment. Upon agreeing to participate, all participants will be asked to imagine that they have received a flyer in the mail from a charity named End the Trade. Unbeknownst to participants, End the Trade is a fictional charity. A fictional charity will be selected in order to minimize the risk that familiarity with a known charity would contaminate participants' responses. Within the flyer, previous donation amount will be manipulated. In the low previous donation amount condition, the flyer will state that End the Trade's records indicate that the participant had donated $5 a year ago. In the high previous donation amount condition, the flyer will state that End the Trade's records indicate that the participant had donated $100 a year ago. The specific wording of the flyer is shown below (the text is copied from www.wildaid.org). The text in brackets will vary by condition.

"Dear Donor,

Our records indicate that you donated [$5/$100] to End the Trade on [date - 1 year]. We are getting in touch to thank you for your [$5/$100] donation. End the Trade's mission is to end the illegal wildlife trade in our lifetimes by reducing demand through public awareness campaigns and comprehensive marine protection. Just like the drug trade, law and enforcement efforts have not been able to resolve the problem. Every year, hundreds of millions of dollars are spent protecting animals in the wild, yet little is spent on stemming the demand for wildlife parts and products. End the Trade is the only organization focused on reducing the demand for these products, with the strong and simple message: When the buying stops, the killing can too. We hope you will continue to support us by making another donation this year.

Thank you,

End the Trade"

On the next page, participants will be asked whether or not they would give a second time to End the Trade. Specifically, participants will be asked "If you had received this letter in the mail, would you make another donation to End the Trade?" Those who answer no will not be asked any additional information pertaining to subsequent charitable behavior. Those who answer yes will also be asked "how much would you give?" and shown an open-ended text box into which they could enter a numerical value. Finally, all participants will be asked to evaluate End the Trade using a 3-item, 7-point scale (Bad/Good, Dislike/Like, Unfavorable/Favorable). Then, as a manipulation check they will be asked to rate how big they perceived that amount to be (1 = *very small,* 7 = *very large*).

The first step in analyzing the data from this experiment will be to confirm that the manipulation worked as intended. To determine that participants varied in their perception of previous donation amount, I will compare ratings of previous donation size across the two and high previous donation amount conditions using a simple t-test. I expect to find that participants in the low previous donation amount condition perceived the previous donation to be smaller than participants in the previous donation amount high group. If the manipulation check results work out, I will then test H1 and H2 simultaneously using a bootstrapped mediation model (model 4 from Hayes, 2013). I expect to find a significant indirect effect of previous donation amount on subsequent charitable behavior through charity evaluation. As mentioned in the previous future research idea, a significant effect is observed if the confidence interval of the coefficient of the indirect effect does not include zero.

This work would contribute to the literature on charitable behavior in two ways. First, this would be the first investigation to examine how a donor's previous donation amount influences their subsequent charitable behavior. Second, I explain this effect in terms of charity evaluation. I hope to find that when a donor's previous amount is small, they take that as a signal that they did not value the charity highly in the past, and thence they do not donate subsequently. Conversely, when a donor's previous donation amount was high, they take this as evidence that they evaluated the charity highly in the past, and they are more likely to donate subsequently. This work would also have managerial impact for charities. Specifically, this work would suggest that charities should avoid repeating the donor's previous amount in a letter if that amount is relatively low.

CONCLUSION

This essay reviewed the last ten years of research on the charitable behavior construct, and proposed two new research projects to contribute to this literature. The review of charitable behavior revealed both antecedents and consequences of charitable behavior. The antecedents of charitable behavior were organized into appeal factors (which could be altered within the solicitation material of a real charity) and individual factors (which are situated in the minds of potential donors. The purpose of this paper was first to identify the state of knowledge on charitable behavior, and then position new research projects within that field. Two new research projects were outlined within this essay, and one has been executed in the second essay. The first of these proposed future research projects argues that consumers are often exposed to moral violations in the media they consume. These moral violations can then elicit either anger or disgust in the potential donor, which have unique effects on charitable behavior. The second of these proposed future research projects argues that previous donation amount can influence subsequent charitable behavior by altering one's evaluation of the charity. Finally, in the next essay, I examine the effect of belief in free will on charitable behavior, and find that, contrary to prior literature, there are cases when belief in free will suppresses charitable behavior.

ESSAY 1 APPENDIX

Figure 1: Antecedents & Consequences of Charitable Behavior

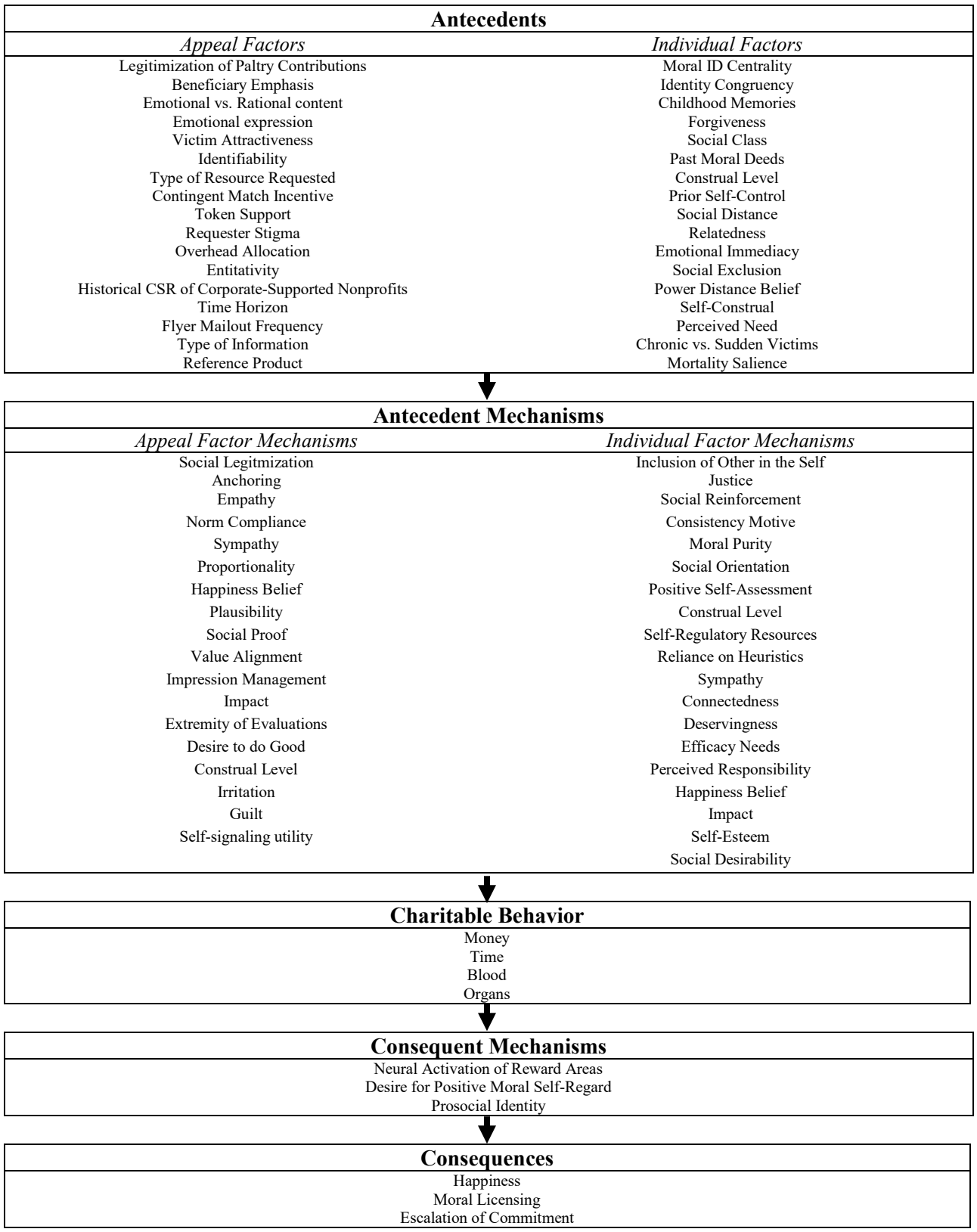

Figure 2: Effect of Moral Violations on Charitable Behavior

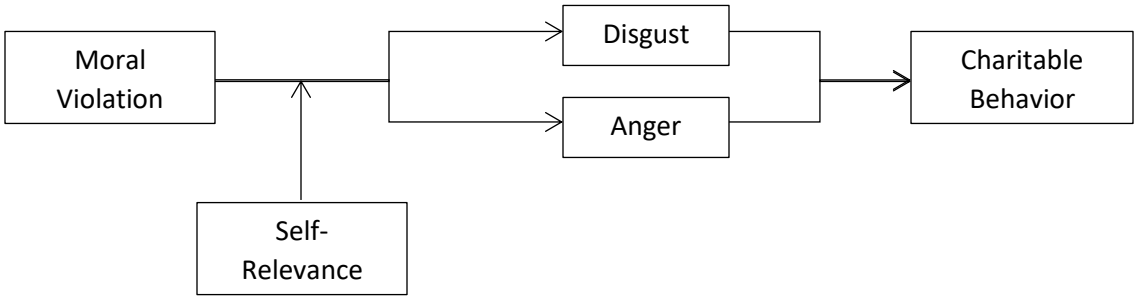

Figure 3: Effect of Previous Donation Amount on Subsequent Charitable Behavior

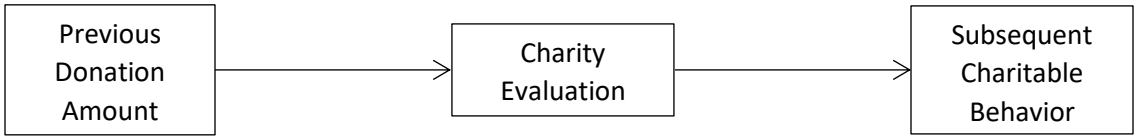

Table 1: Definitions of Prosocial and Charitable Behavior

Authors	Construct	Definition	Operationalization
		Panel A: Prosocial Behavior	
(Caprara et al. 2012)	Prosocial Behavior	"Prosocial Behaviors refer to voluntary actions undertaken to benefit others, such as sharing, donating, caring, comforting, and helping."	Degree of engagement in 16 "actions aimed at sharing, helping, taking care of others' needs, and empathizing with their feelings" e.g. "I try to help others"
(Feinberg et al. 2012)	Prosociality	"caring about others' welfare and avoiding behaviors that may damage another's welfare"	1. Dictator game 2. Subset of the NEO Personality Inventroy—Revised. "I go out of my way to help others if I can."
(Penner et al. 2005)	Prosocial Behavior	"a broad category of acts that are defined by some significant segment of society and/or one's social group as generally beneficial to other people."	review
(Batson, 1998, Batson & Powell, 2003)	Prosocial Behavior	"covers the broad range of actions intended to benefit one or more people other than oneself— behaviors such as helping, comforting, sharing, and cooperating."	review
		Panel B: Charitable Behavior	
(Bendapudi et al. 1996)	Helping Behavior	"behavior that enhances the welfare of a needy other, by providing aid or benefit, usually with little or no commensurate reward in return."	review
(Fisher and Ackerman 1998)	Volunteerism	No explicit definition	Number of hours willing to donate
(Zhou et al. 2012)	Charitable Behavior	A form of prosocial behavior; such behavior entails actions that intend to help and do help others	1. Monetary and volunteer intentions. 2. Monetary donations to a real charity.
(Winterich et al. 2013)	Charitable Behavior	Voluntary donations of time or money that are intended to help others	1. Monetary donations 2. Volunteering for future studies
(Liu and Aaker 2008)	Charitable Contribution	No explicit definition	1. Monetary donations 2. Temporal donations

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ESSAY 2

BELIEF IN FREE WILL AND CHARITABLE BEHAVIOR:

THE ROLE OF ENDOWMENT ORIGIN AND PERCEIVED OWNERSHIP OF MONEY

ABSTRACT

Belief in Free Will (BiFW) is the extent to which a person believes that their choices are determined primarily by their own sense of agency rather than prior events (Shariff et al. 2014). Previous research has shown that BiFW has a positive effect on moral and prosocial behaviors (Vohs and Schooler 2008; Baumeister et al. 2009). This essay extends past research by proposing that BiFW can have either a positive or a negative effect on charitable behavior depending on endowment origin, which refers to whether money possessed by an individual is perceived to be earned or unearned. This essay also argues that the moderating effect of endowment origin is driven by a mechanism based on perceived ownership of money. The model developed in this essay is tested in four studies, using different manipulations and measures of belief in free will, as well as different measures of charitable behavior. This essay aims to make contributions to the literature by identifying endowment origin as a new moderator of the effect of BiFW on charitable behavior, and identifying perceived ownership of money as a new mechanism underlying the effect of BiFW on charitable behavior.

INTRODUCTION

Charitable behavior is an important outcome for both charitable organizations as well as society as a whole. In essay 1, I organized the drivers of charitable behavior into two categories of factors: individual factors and appeal factors. The present essay focuses on a key individual factor that could influence charitable behavior, namely belief in free will (hereafter BiFW). BiFW has been defined as the extent to which a person believes that their choices are determined primarily by their own sense of agency, rather than prior events (Shariff et al. 2014). To illustrate, consider a person named Dave who is making a choice between tea and coffee in the morning. Let us say that Dave chose coffee this morning. If we were to ask Dave why he chose coffee, his explanation might reveal the extent to which he believes in free will. If Dave has a high BiFW, he would believe that his choice of coffee was determined primarily by his own sense of agency, which refers to the subjective feeling that one is initiating and executing one's own actions at a given point in time (Jeannerod 2003). Thus, for example, Dave might say that his choice was the result of his mental assessment of the merits of coffee versus tea, and his conclusion that coffee was the better option.

In contrast, if Dave has a low BiFW, he would believe that his choice of coffee was determined to a relatively lesser extent by his own sense of agency, and to a greater extent by prior events. Here prior events refer to any event that happened before the choice in question. For example, being born in a particular culture, inheriting certain genes, and electrochemical brain activity are all events that occurred prior to Dave's choice of coffee. So Dave might believe that his choice of coffee was influenced by the fact that he was born in a culture where everyone drinks coffee, or his inheritance of genes that predisposed him to prefer the taste of coffee over tea, or even that his choice was simply determined by neural activity in his brain.

The preceding example illustrates BiFW with an everyday choice between tea or coffee in the morning. However, BiFW could be illustrated in the same way with other choices in life such as choice of university, holiday destination, movies, books, or breakfast cereal. For each of these choices, it is possible that people believe their choices are being driven primarily by prior events or by their own sense of agency. Thus, BiFW is a general belief regarding the extent to which our choices are driven by prior events versus our own sense of agency. Importantly, past research indicates that BiFW has both state and trait characteristics (Rakos et al. 2008; Paulhus and Carey 2011; Shariff et al. 2014). Thus, in addition to stable individual differences in BiFW, there is also evidence that people update their BiFW in response to contextual factors. For example, students who read magazine articles about neuroscience were found to have lower BiFW than those who read articles about global warming (Shariff et al. 2014).

How does BiFW influence our judgments and decisions in daily life? Both the popular press as well as academic research have highlighted the benefits of high BiFW for individuals as well as society. For example, in his bestselling book, *Audacity of Hope*, Barack Obama wrote that several core American values such as self-reliance, discipline, hard work, and personal responsibility were "…rooted in a basic optimism about life and a faith in free will — a confidence that through pluck and sweat and smarts, each of us can rise above the circumstances of our birth" (pg. 34-35, Obama 2007). A similar point is made in *Freedom Evolves* by popular philosopher Daniel Dennett (Dennett 2004), who argues that free will is an essential prerequisite for people to take responsibility for their own behavior. And in a recent article in *The Atlantic,* it was argued that, despite the fact that free will cannot easily be reconciled with contemporary thinking in science and philosophy, it was better for people to believe in it anyway (Cave 2016).

Academic research also supports the idea that stronger BiFW leads to positive outcomes for the self and society. Specifically, past research shows that BiFW increases moral behavior (Vohs and Schooler 2008), prosocial behavior (Baumeister et al. 2009), feelings of gratitude (MacKenzie, Vohs, and Baumeister 2014), job performance (Stillman et al. 2010), learning from negative emotions (Stillman 2010), academic performance (Feldman et al. 2016), and self-control (Rigoni and Kühn 2016). Insofar as these outcomes are considered desirable, the broad implication of previous research is that greater BiFW is a good thing for the self as well as society.

This essay qualifies conventional wisdom and past research by showing that greater BiFW can sometimes have undesirable effects in the context of charitable behavior. Charitable behavior is an outcome of interest to marketers and consumer psychologists since charities perform a wide range of functions that are considered valuable to society. For instance, charities often deliver humanitarian aid, education, access to healthcare, environmental preservation, or community development benefits to underserved segments of society. However, it has been observed that getting people to donate is a challenge for several reasons. First, there is intense competition for a limited pool of donation dollars with over 1.5 million charities in operation in the US alone, and many more charities operating in other countries around the world (The Urban Institute 2015). Second, over one-third of Americans and more than two-thirds of people in the rest of the world do not donate to charities at all (Winterich and Zhang 2014). The third major challenge is perhaps the most fundamental. Asking someone to donate resources involves asking them to help someone other than themselves, which goes against a basic human tendency to behave in a self-beneficial manner (Dewall et al. 2008; Baumeister et al. 2009). In order to

overcome these challenges, it is important to gain a deeper understanding of the drivers of charitable behavior.

The current essay addresses this issue by examining the role of BiFW as a key antecedent of charitable behavior. Specifically, this essay argues that BiFW can have either a positive or a negative effect on charitable behavior depending on the level of endowment origin, which refers to whether money possessed by an individual is perceived to be earned or unearned (Cherry, Kroll, and Shogren 2005). Further, this essay argues that the moderating effect of endowment origin is driven by a mechanism based on perceived ownership of money. The model developed in this essay is tested in four studies, using different manipulations and measures of belief in free will, as well as different measures of charitable behavior. This essay aims to make a contribution to the literature by identifying endowment origin as a new moderator, and perceived ownership of money as a new mechanism underlying the effect of BiFW on charitable behavior.

The model proposed in this essay suggests several steps that can be taken by charity managers to maximize donations. First, charity managers should consider whether the audience they are appealing to is likely to be donating with earned or unearned money. It seems likely that, most of the time, prospective donors will be thinking about donating from earned funds. However, at certain times of the year such as tax return season, or Christmas bonus time could be associated with a greater presence of unearned funds. Second, depending on whether prospective donors are donating from earned versus unearned funds, a charity manager should place their appeal near content that either refutes or supports BiFW. Specifically, when prospective donors are likely to be donating with earned funds, an appeal near media content that refutes free will should be more effective than one that is near media content that supports free will. However,

when prospective donors are likely to be donating with unearned funds, an appeal close to media content that supports free will should be more effective than one that refutes free will.

The rest of this essay is organized as follows. I begin by defining BiFW, differentiating it from related constructs, and summarizing relevant previous research on BiFW. I then present my theoretical framework and develop hypotheses regarding the effect of BiFW and endowment origin on charitable behavior. Next, I describe four studies which test the proposed hypotheses. I conclude by summarizing this essay's contributions to the literature on belief in free will and charitable behavior, implications for charity managers, and avenues for future research.

LITERATURE REVIEW

Definition of Belief in Free Will

Past research on BiFW has proposed several definitions of this construct (see table 1). Although these definitions vary in their wording, they have a common essence captured by the definition adopted in this essay: BiFW is the extent to which a person believes that their choices are determined primarily by their own sense of agency rather than prior events (Shariff et al. 2014). As discussed earlier, one could believe that one's choice between tea and coffee in the morning is driven primarily by one's subjective feeling of choosing at that point in time. Alternatively, the same choice could be seen to be driven by prior events such as having been born in a culture of coffee lovers, inheriting a genetic predisposition, or the inevitable result of neurological activity in the brain. Based on the definition of BiFW above, the following sections discuss the measurement, manipulation, and discriminant validity of belief in free will. Specifically, I describe two common measures of BiFW, two widely used manipulations of BiFW, and differentiate BiFW from three related constructs in the literature: implicit person theory, locus of control, and self-efficacy (see table 2).

Measures of Belief in Free Will

Previous research has validated two scales that measure individual differences in BiFW: the Free will And Determinism Plus (henceforth, FAD+) scale developed by Paulhus and Carey (2011) and the Free Will and Determinism (henceforth, FWD) scale developed by Rakos et al. (2008). Both scales can be found in appendix A. The FAD+ scale is a 27-item instrument with subscales measuring BiFW and determinism. The BiFW subscale of the FAD+ consists of seven items, where participants are asked to indicate how much they agree or disagree with each statement, on a 1 (strongly disagree) to 5 (strongly agree) scale. Sample items include, "people have complete control over the decisions they make" and "people must take full responsibility for any bad choices they make." Empirical analysis of the BiFW subscale of the FAD+ indicates that individual have a relatively high BiFW in general, and also that BiFW appears to vary across individuals. For example, Paulhus and Carey (2011) reported mean scores on the BiFW subscale that ranged from 3.31 to 3.82 out of 5, where 1 indicates low BiFW and 5 indicates high BiFW. Similarly, Stillman et al. (2010) reported an average of 4.01 in one study, and Clark et al. (2014) report means ranging from 3.38 to 4.01 across three studies. In all of these cases, the mean BiFW was observed to be above the midpoint of the scale, indicating that individuals had a relatively high BiFW. The preceding investigations also indicate that BiFW varies among individuals. For example, it has been reported that the standard deviation of BiFW ranges from .54 to .79, using the same five-point scale described above. Expressed differently, people tend to score between 3.5 and 4 out of 5, and the average score tends to deviate between .5 and .8 points from the mean. Practically speaking, this means that most people endorse a somewhat positive BiFW without endorsing it completely, and not everyone believes in free will to the same extent.

Another scale that has been used to measure BiFW is the FWD scale. The FWD scale is a 22-item scale anchored by 1 = 'not true at all' and 5 = 'almost always true' with two subscales: Belief in General Will and Belief in Personal Will (Rakos et al. 2008). These authors argue that general will refers to the extent to which one's belief in free will applies globally to everyone (e.g. "Each person's decisions are guided by a larger plan"), and personal will refers to the extent to which one's belief in free will applies locally to oneself (e.g. "I am in charge of the decisions I make"). Empirical results from the FWD scales are largely consistent with those obtained from the FAD+ scale, insofar as people tend to have a somewhat positive BiFW, but with variation in BiFW around the observed means. Specifically, Rakos et al (2008) observed mean BiFW scores ranging from 3.96 to 3.98 on a five point scale. Other researchers report means between 3.67 and 4.15 on a five point scale along with standard deviations ranging from .50 to .59 (Feldman, Baumeister, and Wong 2014). Thus, empirical results of the FAD+ and FWD scales converge in suggesting that people's mean BiFW is on the higher side, but that variation around that mean is sufficient enough to produce meaningful differences in BiFW. In the next section, I will discuss methods for manipulating BiFW within individuals.

Manipulations of Belief in Free Will

Prior work on BiFW has generally utilized two methods to manipulate participants' BiFW which I refer to as reading sentences and reading passages. In the reading sentences approach, participants are asked to read several statements in a slow, paced manner. The pacing is controlled by restricting participants to one sentence per minute. For instance, in the pen-and-paper version of this method, participants are given a booklet. On each page is a single sentence and only that sentence. They are also given a headset which plays a tone every minute. They are instructed to read the sentences in the booklet, but to only turn the page when they hear a tone. In

the low BiFW condition, the statements refute the idea that free will exists (e.g. "Science has proven that free will is an illusion"), and in the high belief in free will condition, the statements support the idea that free will exists (e.g. "I have free will to control my destiny in life"). The number of statements used varies by study. Some authors use fifteen statements (Vohs and Schooler 2008; Baumeister et al. 2009), while others use ten (Alquist et al. 2015). The method can also be employed electronically by fixing each sentence on a computer screen for one minute at a time. A further variation on this method was employed by Alquist and colleagues (2015), who had participants read each sentence for thirty seconds, and then asked them to rewrite the sentence in their own words during the next thirty seconds.

In contrast to this sentence-based approach, other research has used a passage-based approach for manipulating BiFW. Passage-based manipulations are particularly attractive from a managerial point of view. If a research participant can have their belief in free will affected by a three-hundred-word passage, then it is possible that a similar passage, perhaps in a charity flyer, or in a media context, could influence the BiFW of a potential donor in the real world. Earlier work on BiFW used passages from the Nobel Laureate Francis Crick's 1994 book *The Astonishing Hypothesis*. In the low belief in free will condition, participants were asked to read an approximately six-hundred-word passage that is critical of the idea that free will can exist. In the high belief in free will condition, participants read a control passage that made no reference to free will. Shorter, modified versions of this passage of approximately three hundred words have been used in more recent work on BiFW (Alquist et al. 2015). Finally, researchers have shown that reading popular news articles about neuroscience, compared to environmental science, can reduce belief in free will (Shariff et al. 2014). These latter articles explain the workings of the mind in mechanistic terms, and hence, indirectly undermine respondents BiFW.

Belief in Free Will and Related Constructs

In this section, I compare and contrast BiFW with three related, but distinct constructs: implicit person theory, locus of control, and self-efficacy (see table 2). In all three cases, the core similarity to BiFW has to do with perceptions of control, and in all three cases, the major distinction has to do with how each construct relates to perceptions of control. In each case, I present the definition of the construct first, then I discuss how they are similar to BiFW, and then I discuss how they are different from BiFW.

Insert Table 2 Here

Implicit Person Theory. Implicit person theory has been defined as the extent to which a person believes that personal traits are fixed versus malleable (Dweck, Chiu, and Hong 1995). Individuals who subscribe to the belief that traits are fixed are referred to as "entity theorists" while those who subscribe to the belief that traits are malleable are referred to as "incremental theorists." To illustrate, an entity theorist believes that, for the most part, intelligence is a fixed trait. People are as intelligent as they are, and there is nothing that they, or anyone else, can do to change that. In contrast, an incremental theorist would believe that intelligence is malleable. Despite what one's intelligence is right now, there are things one could do to improve or diminish it. How does implicit person theory compare to belief in free will? In the next paragraph, I discuss how they are similar and subsequently I discuss how they are different.

IPT and BiFW are theoretically similar because variation in both IPT and BiFW can determine a person's sense of control over their life. For instance, an incremental theorist believes that they can control how smart, funny, or well-organized they become, because these traits are malleable. Likewise, those with a high BiFW may perceive that they can control how

smart, funny, or well-organized they become, because they can control the choices that change those traits. Conversely, an entity theorist believes that their personal attributes are set, so they cannot control how smart, funny, or well-organized they become in the future because these traits are unchangeable. Thus, they will always be as smart, funny, or well-organized as they are right now. Likewise, a person with a low BiFW admits that they cannot control how smart, funny, or well-organized they become in the future, because they cannot control the choices that determine those attributes. However, it is possible for a person to believe that their traits are malleable and that they have no control over the choices that modify their traits. This is key to differentiating BiFW from IPT, which I discuss next.

IPT and BiFW are different because they relate to control via distinct, independent paths. IPT relates to control in terms of whether or not a person's traits are changeable, and BiFW relates to control in term of whether one's choices are driven by one's sense of agency, or prior events. As such, it is possible for a person to be an entity theorist who has a high belief in free will, or an incremental theorist with a low belief in free will. For example, a person could believe that their intelligence, humor, and organizational skills are fixed while also believing that their choices are primarily determined by their own sense of agency. In other words, this person would believe that they are free to try to become smarter, funnier, or better-organized, but their efforts are doomed to fail. Conversely, a person could believe that their personal traits are malleable, but that their choices are mostly determined by prior events. For example, this person would believe that their intelligence, humor, and organizational skills can improve or diminish, but that their choices to improve or neglect these traits are mostly driven by past events, and not their own sense of agency. These examples should illustrate that BiFW and IPT are conceptually distinct.

Implicit person theory has also been distinguished from belief in free will empirically. Specifically, IPT and BiFW were measured alongside gratitude, self-efficacy, and perceived meaning in life. All five variables were entered into a multiple regression model, with IPT and BiFW entered as independent variables and gratitude, self-efficacy, and perceived meaning in life entered as outcome variables. Supporting the idea that the two constructs are distinct, BiFW and IPT explained unique proportion of variance among these outcome variables. If BiFW and IPT were measuring the same construct, they would not have explained unique proportions of variance (Crescioni et al. 2015). I now turn my attention to another construct related to BiFW: Locus of control.

Locus of Control. Locus of control is defined as "the degree to which the individual perceives that the reward follows from, or is contingent upon, his own behavior or attributes versus the degree to which he feels the reward is controlled by forces outside of himself and may occur independently of his own actions" (Rotter 1966, p. 1). LoC has two levels: internal and external. An internal LoC is the sense that outcomes are dependent upon one's own actions. For instance, the outcome of getting a promotion at work may depend upon one's performance at work. An external LoC is experienced as the sense that outcomes are independent of one's own actions. For instance, if one's boss is nepotistic, then the outcome of getting a promotion at work may depend upon whether or not you are genetically related to the boss. Since a person cannot take actions to become genetically related to their boss, one's actions cannot influence the outcome of getting a promotion. Thus, one's LoC in this situation would be external.

BiFW and LoC are similar in that they both relate to the extent of control a person perceives themselves to have over outcomes in their life. A low BiFW and an external LoC are both associated with a reduced sense of control over one's life. A low BiFW reduces sense of

control because it implies that one's choices are primarily determined by prior events over which one did not have control. An external LoC reduces a sense of control because, by definition, it implies a setting where one's actions do not alter, change, or influence a given outcome. Conversely, a high BiFW and an internal LoC are both associated with an increased sense of control over one's life. A high BiFW increase one's sense of control because it implies that one's choice are primarily driven by one's sense of agency. An internal LoC is associated with an increased sense of control because, by definition, it implies a setting wherein one's actions do, in fact determine outcomes. So the constructs are similar in that they are both linked to how much control one appears to have over one's own life. However, as with IPT and BiFW, LoC and BiFW differ in how they influence perceptions of control.

LoC and BiFW are different in two ways. The first difference is that BiFW is a more global belief, whereas locus of control is a more situational appraisal. The second difference is that LoC and BiFW relate to the perception of control in unique ways. First, allow me to discuss how the two differ in how global versus situational they are. LoC is predominantly a situational appraisal, whereas BiFW is a more global appraisal. In other words, a person can have a totally internal LoC in one situation, and a totally external LoC in another. One does not have a latent LoC that one carries from one situation to the next. Instead, it is mostly situations that determine one's LoC at a given moment. For example, let's say Dave works for a nepotistic boss at a bank. Dave knows there is a promotion available, but he has heard through the rumor mill that the boss plans to give the position to his nephew. Dave understands that there is no connection between his job performance (actions) and whether or not he receives that promotion (outcome). Here, Dave has an external locus of control. However, in the very same day, Dave goes home to finish building his model airplane. In this context, he understands that the amount of patience and care

he musters during the assembly process will determine the quality of the finished model. Thus, his actions are directly linked to a particular outcome. Here, Dave has an internal locus of control. Thus, Dave's locus of control depends to a large extent on the situation Dave finds himself in. BiFW, by contrast, refers to a global appraisal about the predominant source of choices. There's no reason to think that Dave believes in free will at work, and disbelieves in free will when he assembles model airplanes.

The second major difference between LoC and BiFW is that they each relate to one's sense of control differently. As mentioned, LoC is concerned with the question of whether or not an individual's actions will generate a given outcome. When and individual's actions do increase outcomes, one has an internal LoC, and a high sense of control. However, if an individual's actions do not affect outcomes, one has an external LoC, and a corresponding low sense of control. BiFW does not have anything to do with the linkage between actions and outcomes. Instead, BiFW is concerned with what caused a chosen action to be chosen in the first place, irregardless of that actions outcomes, or lack of outcomes. In other words BiFW is concerned with the predominant causes behind one's choices, and LoC is concerned with whether or not chosen actions will lead to given outcomes. Thus, it is possible to be low in BiFW but maintain an internal LoC, or to have a high BiFW coupled with an external LoC. For instance, Dave may believe that the fact that he works hard is mostly explained by his genetics and/or his upbringing, (low BiFW), but he can still also believe that his hard work will result in a promotion (internal LoC). Conversely, Dave may believe that the fact that he works hard is completely due to his conscious decision to do so every morning (high BiFW), but he can still also believe that his hard work will not result in a promotion, because his boss is nepotistic (external LoC). In sum, BiFW and LoC are distinct at a conceptual level. Empirically, previous work has found no significant

correlation between measures of LoC and BiFW. Moreover, as with the findings separating IPT from BiFW, LoC and BiFW were found to explain unique proportions of variance in a multiple regression model of self-efficacy, and perceived meaning in life. If BiFW and LoC were measuring the same construct, they could not have explained unique proportions of variance (Crescioni et al. 2015). I now turn my attention to the construct of self-efficacy.

Self-Efficacy. Self-efficacy has been defined as the belief that one has the capacity to perform required actions to gain desired outcomes (Bandura 1977). When self-efficacy is low, a person believes that they cannot perform such actions, and when self-efficacy is high, they believe that they can. For example, Dave knows that in order to qualify for a promotion at his bank job, he needs to open more accounts each month. If Dave believes that he lacks the capacity to open more accounts each month, then he will have low self-efficacy in this context. If Dave believes he has the capacity to open more accounts each month, then he has high self-efficacy.

As with IPT and LoC, the similarity that BiFW and self-efficacy share is that they both relate to how much control a person feels they have in life. With a low self-efficacy, Dave doesn't believe that he has the ability to open the number of bank accounts needed to earn a promotion. Since he cannot earn the promotion he desires, Dave probably feels less control over his life than if he had a high self-efficacy. Likewise, with a low BiFW, Dave believes that his choices are primarily determined by prior events, rather than their own sense of agency, so he probably feels less control over his life than he would if he had a high BiFW. However, it is possible for Dave to have high self-efficacy and low BiFW or low self-efficacy and high BiFW.

While self-efficacy and BiFW both relate to control, they are conceptually distinct because self-efficacy is concerned with one's perceived capacity to perform an action, whereas BiFW is concerned with one's capacity to choose an action. For instance, if Dave had both a low

self-efficacy and a high BiFW, he would believe that he is not capable of opening enough accounts to earn the promotion, but that his choice to try or not to try to open more accounts is determined by his sense of agency. In other words, Dave can believe that he's free to choose to try to work harder, even he doubts that his efforts will pay off. Conversely, if Dave had both a high self-efficacy and a low BiFW, he would believe that he is capable of opening enough accounts to earn the promotion, but that his choice to try or not to try is derived from prior events. In other words, Dave can believe that he was born with whatever it takes to open bank accounts, but that his choice to try to open more bank accounts is determined by his disciplined upbringing. These conceptualization of Dave wouldn't make sense if self-efficacy and BiFW were the same construct. Thus, I hope to have illustrated how they are conceptually distinct.

While self-efficacy and BiFW are conceptually distinct, work has shown that they are positively correlated. Specifically, in two studies which measured both BiFW and self-efficacy, the authors found the correlation between the two to be .35 in one study, and .48 in another. These correlations are strong and significant, but the authors of that study treat them as independent constructs (Crescioni et al. 2015). The positive association between BiFW and self-efficacy makes some intuitive sense. If a person believes that the primary source of their choices is themselves, they may perceive a higher ability to perform actions than someone who believes that primary source of their choices is merely prior events. Having a higher sense of control over one's own choices might increase one's estimation of one's own abilities, and thence increase self-efficacy.

In the preceding sections, I have distinguished BiFW from implicit personal theories, locus of control, and self-efficacy. In each case, I find both theoretical and empirical reasons to

treat BiFW as a distinct concept. In the next section, I review the literature on BiFW with a focus on research that is most relevant to the current proposal.

Past Research on Belief in Free Will

Past research has shown that BiFW influences moral behavior (Vohs and Schooler 2008), prosocial behavior (Baumeister et al. 2009), counter-factual thinking (Alquist et al. 2015), feelings of gratitude (MacKenzie et al. 2014), job performance (Stillman et al. 2010), learning from negative emotions (Stillman 2010), conformity (Alquist, Ainsworth, and Baumeister 2013), academic performance (Feldman et al. 2016), self-control (Rigoni and Kühn 2016), neural response to mistakes in a game (Rigoni, Pourtois, and Brass 2014), and retribution (Shariff et al. 2014). The effects of BiFW on moral behavior and prosocial behavior are particularly relevant to the present research since charitable behavior can be considered to be a form of prosocial behavior. Below, I summarize past research on moral and prosocial behavior and then build on these literatures in the present essay.

Moral Behavior. Moral behavior is defined as behavior that is consistent with moral norms (Vohs and Schooler 2008). For example, not cheating on an exam is consistent with the moral norm that one should not cheat. Vohs and Schooler (2008) found a positive effect of BiFW on moral behavior in two studies. To manipulate BiFW, the authors had participants either read a passage which criticized the notion of free will in the low BiFW condition, or a passage unrelated to free will in the control condition. To measure moral behavior, they gave participants the opportunity to cheat at a task. Specifically, participants were given a computer-based mental-arithmetic task, which asked participants to solve arithmetic problems (e.g., 1 + 8 + 18 – 12 + 19 – 7 + 17 – 2 + 8 – 4 = ?) in their heads, and then enter the solution on the computer. To measure moral behavior, participants were told that the computer program had a glitch which would make

the answer to the problem appear on the screen. They were also told that they could prevent the correct answer from being displayed if they hit the spacebar after the problem was displayed. The number of spacebar presses was taken as the measure of moral behavior. As predicted, they found that participants who had read the passage that was critical of free will pressed the space bar less, i.e., cheated more, than those who read the control passage. This result replicated in a second experiment using a different manipulation of BiFW and a different measure of moral behavior. Specifically, BiFW was manipulated the same internalization procedure discussed earlier and used in Baumeister et al., (2009). To measure moral behavior, the experimenters again gave participants the opportunity to cheat. However, this time, participants were given fifteen problems taken from the GRE and told that they would receive $1 for each correct answer they provided. Then, the experimenter pretended to receive an emergency text message. At this point, she told participants to score and pay themselves and to then shred their answer sheets. Moral behavior was measured by comparing the amounts paid by participants to themselves in the experimental versus control conditions. Participants were run in cohorts of at least two, to preserve their anonymity. Consistent with predictions, the authors found that those who had read the anti-free will sentences paid themselves more than those who read the free will or neutral sentences.

Vohs and Schooler (2008) explained their above findings in terms of willingness to exert effort. Specifically, they argued that people are naturally inclined to behave in a selfish manner and overriding this impulse to behave selfishly requires people to exert effort. These authors further argued that people who have high BiFW are more likely to exert effort than those who are low BiFW. Recall that BiFW was defined as the extent to which a person believes that their choices are determined primarily by their own sense of agency rather than prior events. Based on

this definition, someone with a high BiFW might feel as if they have greater influence over future outcomes than someone with a low BiFW. If one feels that they have more influence over future outcomes, then they may be more willing to exert effort on choices that will matter in the future. Thence, those with a high BiFW should be more willing to exert effort than those with a low BiFW. If high BiFW individuals are more likely to exert effort, then they should also be more successful in enacting effortful moral and prosocial behaviors.

Prosocial Behavior. Prosocial behavior has been defined as behavior that is done with the intent of helping others (Batson 1987). To demonstrate that BiFW increases prosocial behavior, Baumeister et al. (2009) conducted two studies. In the first study, they manipulated BiFW and measured prosocial intent. To manipulate BiFW, they had participants complete the induction procedure discussed earlier, whereby participants in the low BiFW condition read fifteen sentences that undermined the idea of free will (e.g. "Science has demonstrated that free will is an illusion"), while those in the high BiFW condition read fifteen sentences that supported BiFW (e.g. "I demonstrate my free will every day when I make decisions"). This research also included a control condition wherein the sentences contained no information about free will (e.g. "Oceans cover 71% of the earth's surface"). To measure prosocial behavior, the authors used a measure of prosocial intent. Specifically, they had participants read six short scenarios in which they had the chance to help others (e.g., giving money to a homeless person, allowing a fellow classmate to use one's cellular phone). After each scenario, participants were asked to indicate the likelihood that they would help the person in the scenario using a scale ranging from 1 – *not at all,* to 9 – *very likely*. The authors found that those in the low belief in free will condition indicated a lower average prosocial intent than those in either the high BiFW or control conditions. Notably, there was no difference in intent to help between the high BiFW and control

conditions. In a second experiment, the authors examined chronic individual differences in belief in free will and measured prosocial intent using a different task. To measure BiFW, the authors used the Free Will and Determinism (FAD) scale (cf. Paulhus and Carey, 2011). To measure prosocial intent, participants were asked how many hours they would be willing to volunteer to help a fellow student whose family was recently struck by tragedy. The correlation between individual differences in BiFW and number of hours volunteered was positive and significant. Thus, in two studies, using two different methodologies, the authors found that greater belief in free will was associated with greater prosocial behavior as measured as prosocial intent. Baumeister et al (2009) explain these findings in terms of the same willingness to exert effort mechanism proposed in the case of moral behavior (Vohs and Schooler, 2008). Specifically, they argued that people are naturally inclined to behave in a selfish manner and overriding this impulse to behave selfishly requires people to exert effort. These authors further argued that people who have high BiFW are more likely to exert effort than those who are low BiFW. Recall that BiFW was defined as the extent to which a person believes that their choices are determined primarily by their own sense of agency rather than prior events. Based on this definition, someone with a high BiFW might feel as if they have greater influence over future outcomes than someone with a low BiFW. If one feels that they have more influence over future outcomes, then they may be more willing to exert effort on choices that will matter in the future. Thence, those with a high BiFW should be more willing to exert effort than those with a low BiFW. If high BiFW individuals are more likely to exert effort, then they should also be more successful in enacting effortful moral and prosocial behaviors. Similar to moral behavior, prosocial behavior was also said to be likely to require effort. Since people with high BiFW are more

likely to exert effort than those who are low BiFW they should also be more likely to be successful in enacting prosocial behavior.

In summary, past research suggests that BiFW has a positive effect on moral and prosocial behaviors and these effects are driven by willingness to exert effort. Since charitable behavior is a form of prosocial behavior, this past research implies that BiFW should also increase charitable behavior, with this effect being mediated by willingness to exert effort.

THE CURRENT INVESTIGATION

The present research seeks to extend the literature on BiFW and moral/prosocial behavior in two ways. First, I propose that the effect of BiFW on charitable behavior depends on endowment origin. Endowment origin refers to whether money possessed by an individual is perceived to be earned or unearned (Cherry, Frykblom, and Shogren 2002; Cherry et al. 2005). I find that in the earned condition, the effect of BiFW on charitable behavior is negative — contrary to expectations from prior research. Second, I identify perceived ownership of money as the mechanism through which BiFW can have a negative effect on charitable behavior. In the following sections, I develop hypotheses regarding the effects of BiFW, endowment origin, and perceived ownership of money on charitable behavior. The model developed in this essay is summarized in Figure 1.

Insert Figure 1 Here

HYPOTHESIS DEVELOPMENT

Perceived Ownership of Money

As shown in figure 1, I propose that BiFW and endowment origin operate through perceived ownership of money to influence charitable behavior. Perceived ownership has been broadly defined as the perception that something is "mine" (Pierce, Kostova, and Dirks 2003; Peck and Shu 2009). Previous research has examined perceived ownership in several contexts, including people's perceived ownership of mugs and pens (Peck and Shu 2009), employees' perceived ownership of the company they work for (Pierce et al. 2003) and children's perceived ownership of their favorite songs (Isaacs 1933). Research on perceived ownership has examined this construct as a mediator of the endowment effect (Peck and Shu 2009; Shu and Peck 2011). The endowment effect refers to the finding that consumer's valuation of things increases once they have taken possession of it (Thaler 1980; Knetsch and Sinden 1984; Kahneman, Knetsch, and Thaler 1990). To manipulate possession, participants are randomly assigned to be either buyers or sellers of an object. Sellers are given possession of the object by the experimenter, while buyers are shown, but not given, the same object. Valuation is measured by asking buyers to report how much they would be willing to pay for the object, and by asking sellers to report how much they would be willing to accept for the same object. Typically, sellers provide higher valuations than buyers. In other words, ownership (absent for buyers, present for sellers) increases valuation, which has been termed the endowment effect. Prior work on the endowment effect has shown that it is moderated by length of ownership (Strahilevitz and Loewenstein 1998), reasons for buying or selling (Johnson 2007), attribute focus (Carmon and Ariely 2000), degree of market experience (List 2003), and physical touch (Peck and Shu 2009). Moreover, in an extension of the endowment effect literature, Shu and Peck (2011) found that all of the

abovementioned interaction effects were mediated by perceived ownership. In sum, perceived ownership has been empirically demonstrated as a mediator of endowment effects across a wide range of contexts, and for a wide range of moderators.

In the present research, I focus on perceived ownership of a particular object, namely money. Recall that endowment origin is defined as the degree to which a possessed sum of money is perceived to be earned versus unearned (Cherry et al. 2002, 2005). Thus endowment origin differs from perceived ownership of money in that endowment origin refers to how the money came to be possessed by an individual, while perceived ownership of money refers to feelings of attachment towards this money. To the best of my knowledge, perceived ownership of money has only been examined in study 4 of Shu and Peck (2011). In this study, Shu and Peck (2011) sought to extend Carmon and Ariely (2000), who had found earlier that the endowment effect was moderated by attribute focus. Attribute focus refers to what aspects of an exchange one pays attention to while evaluating that exchange. Carmon and Ariely (2000) had argued that people are naturally inclined to focus on what they will lose when they consider an exchange. For instance, consider two people who are considering an exchange of basketball tickets for some as-of-yet-undetermined price. The buyer will focus on the money he stands to lose, while the seller will focus on the benefits of attending the basketball game while formulating her willingness to sell. Focusing on money increases the value of money, while focusing on benefits increases the value of benefits. Thus, these authors found that the endowment effect was reversed by redirecting participants' attribute focus. When sellers were asked to think about money instead of product benefits, and buyers were asked to think about product benefits instead of money, buyers' valuations were higher than sellers'.

Shu and Peck (2011) extended Carmon and Ariely (2000) by examining the role of perceived ownership as a mediator of the interaction effect of ownership and attribute focus on valuation. Specifically, they replicated the methodology used by Carmon and Ariely (2000) with added measures of perceived ownership. Participants were asked to indicate their perceived ownership of both basketball tickets and money. They found that the more that buyers perceived that they owned their money, the less they were willing to pay. In contrast, the more that sellers perceived that they owned money, the more they demanded in exchange for the object. The present research differs from Peck and Shu (2011) by examining the role of perceived ownership of money as a mediator of the effect of BiFW and endowment origin on charitable behavior.

Belief in Free Will, Endowment Origin, and Perceived Ownership of Money

I argue that the effect of BiFW on charitable behavior is moderated by endowment origin, and this interaction is mediated by perceived ownership of money. As stated earlier, endowment origin refers to whether money possessed by an individual is perceived to be earned or unearned (Cherry et al. 2002, 2005). Earned money is that which a person acquires in exchange for labor, while unearned money is acquired by individuals without expending labor. Examples of earned money include money received in exchanged for odd jobs like babysitting, house sitting, or fixing a computer, or regular jobs with salaried or hourly wages. Examples of unearned money includes money received as part of an inheritance, allowance, lottery winnings, or "dumb luck" as when you find money in the street or on the bus.

First consider the case when endowment origin is earned. When endowment origin is earned, a person has chosen to work for the endowment. The choice concept is of central importance here. Someone with a low BiFW believes that their choices are determined primarily by prior events, whereas someone with a high BiFW believes that their actions are determined

primarily by their own sense of agency. For example, a low BiFW person should describe the decision to work primarily in terms of genetics, upbringing, or neural activity, and a high BiFW person should describe the decision to work primarily in terms of volitionally choosing to go to work. So someone with a low BiFW should attribute responsibility for their choice to work to prior events, while someone with a high BiFW should attribute responsibility for their choice to work to themselves. Therefore, someone with a low BiFW should perceive themselves as less responsible for the money generated by the choice to work than someone with a high BiFW. I posit that the more responsible a person feels for the acquisition of a sum of money, the greater will be their perceived ownership of that sum of money. Thus, I predict that, when endowment origin is earned, BiFW should increase perceived ownership of money. Furthermore, I argue that the perceived ownership of money is likely to have a negative effect on charitable behavior. Essentially, the more a person feels like money belongs to them, the less willing they should be to give it away. This latter argument is consistent with previous work discussed earlier regarding perceived ownership and the endowment effect (Shu and Peck 2011).

Next consider the case when endowment origin is unearned. An unearned endowment is one in which a person's receipt of the endowment occurs independently of their choices. Such an unearned endowment could occur when someone receives an inheritance, finds some cash on the street, or receives an allowance from a parent or benefactor (so long as said person does not require labor in return). If a person receives an endowment regardless of their choices, then their choices have nothing to do with the receipt of said endowment. If a person's choices have no relationship to their receipt of an endowment, then they cannot take more or less responsibility for acquiring said endowment, regardless of how much they believe in free will. Thus, BiFW should not have an effect on perceived ownership of money in the unearned endowment origin

condition. Consequently, in this situation, the willingness to exert effort mechanism from past research would predict that as belief in free will increases, so does one's charitable behavior. My preceding arguments regarding the effect of BiFW, endowment origin and perceived ownership of money on charitable behavior are summarized in the following hypotheses:

H1: BIFW and endowment origin interact to influence charitable behavior such that (a) when endowment origin is earned, BiFW has a negative effect on charitable behavior, and (b) when endowment origin is unearned, BiFW has a positive effect on charitable behavior.

H2: The effect of BiFW on charitable behavior when endowment origin is earned is mediated by the perceived ownership of money.

The above hypotheses are tested in four studies. In studies 1 and 2, I examine the novel mechanism of perceived ownership of money developed in this essay by holding endowment origin at the earned level, and examining the effects of BiFW on perceived ownership of money and charitable behavior. In studies 3 and 4, I conduct a more complete test of the proposed hypotheses by manipulating both BiFW and endowment origin, and measuring perceived ownership of money and charitable behavior. The four studies test for robustness of effects by using different manipulations and measures of BiFW as well as charitable behavior.

STUDY 1

Design, Participants, and Procedure

Study 1 was designed to collect initial evidence for my earlier argument that BiFW is positively associated with the perceived ownership of money in the earned endowment origin condition. Three hundred participants were recruited from mechanical turk for a small monetary compensation. As a cover story, participants were told that the study was about the personality,

beliefs, and feelings of online study participants like them. After providing informed consent, participants responded to the target measures of perceived ownership of money and BiFW. Perceived ownership of money was measured using a three-item, seven-point measure of perceived ownership anchored by 1 = *strongly disagree* and 7 = *strongly agree* (adapted from Peck and Shu 2009b). To ensure that endowment origin was held to the earned condition, the items were adapted to emphasize earned money: "I feel like I own the money I earn," "I feel a very high degree of personal ownership over the money I make," and "I feel like the money I earn is mine." Following the measure of perceived ownership of money, BiFW was measured using the Free Will subscale of the FAD+ (Paulhus and Carey 2011). This measure has been previously used in several studies to measure belief in free will (Baumeister et al. 2009; Feldman et al. 2014; Crescioni et al. 2015). This scale contains seven items, measured on a five-point scale anchored by 1 = *strongly disagree* and 5 = *strongly agree.* Sample items include: "People have complete control over the decisions they make," and "People have complete free will." For a complete list of items, see Appendix A.

Results

Before conducting analyses, the reliabilities of both the BiFW and Perceived Ownership of Money scales was assessed. Both scales had acceptable reliability ($\alpha = .82$ for BiFW and $\alpha = .92$ for perceived ownership of money). Participants' scores were averaged on both scales. To test for a positive association between BiFW and perceived ownership of money, a regression analysis was performed with BiFW entered as the independent variable and perceived ownership entered as the dependent variable. This analysis revealed a significant, positive association between participants' average BiFW score and their perceived ownership of earned money ($\beta=.50$, $p < .001$). Recall it was predicted that BiFW would have a positive effect on perceived

ownership of money in the earned endowment condition. Since all participants were in the earned endowment condition, this proposition was tested by conducting a regression analysis with BiFW as the independent variable and perceived ownership of money as the dependent variable. Results indicated a significant, positive association between BiFW and perceived ownership of money. Thus, the results of this study provide preliminary evidence for the proposed positive relationship between BiFW and perceived ownership of money. In study 2, I expand on study 1 in two ways. First, the design of study 1 was correlational, making it difficult to draw causal inferences about the relationship between BiFW and perceived ownership of money. Thus in study 2, BiFW is manipulated in order to demonstrate causality. Second, study 2 measured charitable behavior, rather than perceived ownership of money, to investigate the hypothesized effect of BiFW on charitable behavior (H1a).

STUDY 2

Design, Participants, and Procedure

This study was designed as a single factor (belief in free will: low vs. high), between-subjects ANOVA with all participants in the earned endowment origin condition. Endowment origin was held constant at the earned level because the goal of this study was to test the theoretically novel portion of my model, i.e. the effect of BiFW on charitable behavior when endowment origin is earned. One-hundred twenty participants were recruited from Mechanical Turk for a small monetary compensation. As a cover story, participants were told that they were taking part in three different studies: a reading comprehension study, an anagram-solving study, and a personality study. For an overview of the procedure, please see Appendix B. After providing informed consent, participants completed the reading comprehension study. The purpose of the reading comprehension study was to manipulate participants' BiFW. As such,

participants were asked to read one of two versions of an approximately 300-word passage which manipulated belief in free will (Alquist et al. 2015), and then answered four reading comprehension questions. As shown in appendix C, one version of the passage argues against the existence of free will, and the other version argues for the existence of free will. After reading the passage, participants then answered four reading comprehension questions. Three of the reading comprehension questions related to the passage (e.g., "What was the main topic of the passage you just read? Please select the option which best represents the main topic of the passage") and were included to be consistent with the cover story. The third question was an attention check item that read "Which of the following statements confirms that participants are reading questions carefully? Please select the fourth option below to confirm that you are reading questions carefully." The fourth response option was "geopolitical stability generally facilitates international trade" and thence had nothing to do with either version of the passage. Thus, I expect that only participants who were carefully reading questions would select this item.

After completing the reading comprehension study, participants moved on to the anagram study, which was designed to induce earned endowment in all participants. The anagram-solving study asked participants to solve as many of eight anagrams as they could within four minutes. Five of the anagrams were easy (tca = *cat*, fdoo = *food*, dda =*dad* or *add*, gdo = *god* or *dog*, meag = *game* or *mage* or *mega*), and three of the anagrams were impossible (uqnie, goplik, mtehw). Participants were informed that would receive $0.05 for each anagram that they correctly solved. Since five of the anagrams were easy, I expected most of the participants to receive a $0.25 endowment. Consistent with this expectation, 109 out of 120 participants earned $0.25. Nine participants earned $0.20, one participant earned $0.15, and one participant earned $0.10, and no participants received less than $0.10. Since three of the anagrams were impossible, I expected

participants to perceive the overall task of completing all eight anagrams to be challenging and thus, not perceive the $0.25 as a handout. In other words, this task was designed to endow participants with $0.25 that they felt they had earned.

After the anagram task, and before the personality questionnaire, participants were shown the following text:

> "Before continuing to study 3, the researchers of study 2 would like to ask you to **consider donating some of your earnings to Doctors Without Borders.** Doctors Without Borders provides medical services to people in areas of the world that need it desperately (poverty-stricken or war-torn populations). In order to help Doctors Without Borders, the authors of study 2 are asking all participants who earned some extra money in the anagram game to consider donating some of that money to Doctors Without Borders. If you would like to donate some of the money you earned to Doctors Without Borders, please choose an amount below. If not, please select "$0.00""

Below this text, a dynamic scale was displayed, ranging from $0.00 to the amount that the participant earned, with $0.05 increments in between. The amount that participants gave was the first measure of charitable behavior. After indicating how much, if any, they wanted to donate, participants were taken to the next study. Consistent with the cover story of being a personality study, this part of the procedure contained the Ten-Item Personality Inventory (TIPI), which has been used in personality psychology (Gosling, Rentfrow, and Swann 2003) to assess participants' personality along the 'Big-5' dimensions i.e. openness, conscientiousness, extraversion, agreeableness, and emotional stability. However, the real purpose of this phase of the study was to obtain a second measure of participants' charitable behavior, as well as check the manipulation of BiFW.

I also measured charitable behavior using a different approach by asking how much participants intended to give to charity in the future. Specifically, participants were asked "How much money do you plan on actually donating to charity in the next 12 months?" and provided with an open-ended response field, where they could enter any number in dollars. I argue that this latter item is an appropriate measure of charitable behavior for the following reasons. First, the respondents in this study were adults living in the US, who were likely to have earned the majority of the money that they give to charity. Hence, participants were likely responding to this item with an earned endowment in mind. Second, the endowment origin induction used in this study is likely to have made earned money more salient in the respondents' mind. This is because earning money through an anagram task would be analogous to earning money via labor in the real world. As a result, it is likely that respondents were considering earned money when they were asked how much they planned to donate to charity in the next 12 months. Finally, asking about charities in general, rather than for Doctors Without Borders specifically, avoids the potentially biasing effects of prior attitudes towards Doctors without Borders.

After indicating their charitable intent, participants completed a single-item manipulation check for BiFW used in prior research (Shariff et al. 2014): "To what degree do you believe that humans have 'free will' in the sense that we can consciously generate spontaneous choices and actions not fully determined by prior events?" anchored with 0 – *I believe humans do not have Free Will,* and 100 – *I believe humans have complete Free Will*. Finally, participants were thanked and debriefed. An amount equal to the sum of charitable behavior was donated to *Doctors without Borders*. Participant bonuses were awarded after the experiment was complete, using Mechanical Turk's bonus system.

Results

Recall that participants' attention was assessed using an attention check item. Fourteen participants who failed the attention check item were removed from analyses, leaving 106 participants for further analysis. The manipulation check for BiFW was successful, since participants in the low BiFW condition indicated lower BiFW than those in the high BiFW (M_{low} = 74.17 vs. M_{high} = 82.91, $F(1, 105) = 4.44$, $p < .04$). H1a predicted that an increase in BiFW would result in a decrease in charitable behavior, when endowment origin is earned. In order to test H1a, ANOVAs were performed with BiFW (low vs. high) as the independent variable for each of the two measures of charitable behavior, namely, task charitable behavior and charitable intent.

Task Charitable Behavior. The first set of analyses tests for the effect of BiFW on task charitable behavior, measured as the number of cents donated to Doctors without Borders. While the mean number of cents donated was consistent with predictions in H1a (M_{low} = 4.91 vs. M_{high} = 3.40), this difference was not statistically significant ($F(1,105) = 0.94$, $p < .33$). As with study 2, it is possible that these results failed to reach significance because the majority of participants (71%) donated 0 cents. This proportion was slightly lower in the low BiFW condition (68%) compared to the high BiFW condition (74%), but a binary logistic regression revealed that this was not a statistically significant difference. Previous work has analyzed charitable behavior data after excluding participants who give nothing in the data (Fraser et al. 1988; Reed II et al. 2016). Note that this alters the interpretation of charitable behavior. With non-donors included, measures of charitable behavior address the question, "on average, how much do people give?" Without non-donors, measures of charitable behavior address the question, "given that somebody has decided to donate, how much did they donate?" Thus, two

sets of analyses will be reported for study 3: one including the full sample, and one which excludes those who donated nothing. Removing participants who gave zero cents again revealed directionally consistent results with H1a, although the effect was not statistically significant (M_{low} = 15.29, M_{high} = 12.86, $F(1, 31) = 0.59$, $p < .45$). Thus, taken together, analyses of task charitable behavior yielded results that were directionally consistent with H1a, although the effects were not statistically significant.

Charitable Intent. With the zeroes included, the means of charitable intent were directionally consistent with H1a (M_{low} = \$164.96 vs. M_{high} = \$112.64) but the effect was not statistically significant ($F(1,105) = .48$, $p < .49$). Similarly, without the zeroes, the means were directionally consistent (M_{low} = \$280.32 vs. M_{high} = \$186.56), but not statistically significant ($F(1,63) = .67$, $p < .44$). Next, I analyzed the charitable intent data after implementing a natural log transformation. This transformation is appropriate, since the charitable intent data was right-skewed (skewness = 5.51, SE = .24), and past research has used the same transformation to correct for right-skewness (Durante et al. 2016; Roux, Goldsmith, and Bonezzi 2016). Since one cannot take the natural log of 0, past research suggests that all 0s be increased slightly before this transformation is performed. This log transformation produced a skewness of -0.24 (SE = .221). This skewness statistic is between -1 and 1, which is considered an acceptable range of skewness. When the data were analyzed including nondonors, there was no significant difference between the low and the high belief in free will conditions on charitable intent (M_{low} = .86 vs. .74, $F(1,105) = .019$, $p < .89$). However, when those who gave nothing were removed from the analysis, consistent with H1a, those in the low belief in free will condition planned to give more than those in the high belief in free will condition (M_{low} = 4.79 vs. M_{high} = 4.20), with this difference reaching significance ($F(1,63) = 4.14$, $p < .05$).

In summary, the results reported above are directionally consistent with hypothesis H1a, across two measures of charitable behavior. Further, H1a was statistically supported by analysis of BiFW on charitable intent when people who gave nothing were excluded from the analysis, and a log transformation was used to correct for skewness. Taken together, the results of studies 1 and 2 provide support for two of the propositions developed in this essay. First, study 1 showed that the effect of BiFW on perceived ownership of money was positive when endowment origin is earned. Second, study 2 showed that the effect of BiFW on charitable behavior was negative when endowment origin was earned.

So far, studies 1 and 2 have examined the effect of BiFW on perceived ownership of money and charitable behavior when endowment origin was held in the earned condition. The next two studies expand on this investigation by manipulating endowment origin. Specifically, the goal of study 3 is to show that endowment origin moderates the effect of BiFW on perceived ownership of money. In the earned endowment origin condition, I expected to replicate the positive effect of BiFW on perceived ownership of money observed in study 1. However, in the unearned endowment origin condition, we expected the latter effect to be attenuated.

STUDY 3

Design, Participants, and Procedure

This study had a measured factor of belief in free will and a manipulated factor of endowment origin with two levels: unearned and earned. Three hundred participants were recruited from mechanical turk for a small monetary compensation. After providing informed consent, participants were randomly assigned to either the unearned or the earned endowment origin condition. In the unearned condition, they were given the following instructions: “The next set of questions require you to imagine that you have just received $100 that you won in a

lottery. Take a minute to tell us what you would think and how you would feel if you had won $100 in a lottery." In the earned condition, the instructions read "The next set of questions require you to imagine that you have just received $100 that you worked hard to earn. Take a minute to tell us what you would think and how you would feel if you had earned $100 by working." Beneath the instructions, participants could enter their thoughts and feelings in an empty text field. This was done to encourage participants to engage with the provided scenarios, and thus increase the strength of the manipulation. After completing the scenario task, participants were then asked to indicate their perceived ownership of the $100 from the scenario they read, using an adapted version of the perceived ownership of money scale from study 1. Specifically, the items read, "I would feel like I owned the $100," "I would feel like the $100 were mine," and "I would feel a very high degree of personal ownership over the $100."

Finally, participants' BiFW was measured using a different instrument from that used in study 1 to assess robustness of effects. In study 3, the 'personal will' subscale of the FWD scale was used instead (Rakos et al. 2008). This scale asks participants to indicate the degree to which they believe eight statements to be true (e.g. "I am in charge of the decisions I make") on a 1-5 scale with the anchors 1- *Not true at all* and 5 – *Almost always true*. A different instrument was used for two reasons. First, I wanted to demonstrate the robustness of the effect by showing that it generalizes across instruments. Second, my theorizing about BiFW relates to how individuals interpret their own choices, rather than the choices of others, so using a more personal measurement of BiFW is consistent with my theoretical approach. After participants indicated their BiFW, they responded to a two-item manipulation check for endowment origin. The two items were "I would feel like I had earned the $100 described in the scenario I saw earlier" and

"I would feel like I had worked for the $100 described in the scenario I saw earlier." Then, participants responded to several demographic measures and were thanked for their participation.

Results

Before conducting analyses, the reliability of the multi-item measures for BiFW, perceived ownership, and the endowment origin manipulation check were assessed. The FWD showed acceptable reliability (α = .69), as did the measures of perceived ownership (α = .93) and manipulation check for endowment origin (α = .88). The manipulation check results indicate that the manipulation of endowment origin was successful ($M_{unearned}$ = 3.74 vs. M_{earned} = 6.41, $F(1, 299) = 293.86$, $p < .001$). Before performing analyses, a median split was used to transform BiFW into a categorical variable with two levels: low versus high. An interaction term of BiFW and endowment origin was then calculated by multiplying these two categorical variables. I then ran a linear regression with BiFW, endowment origin, and the interaction term as independent variables and perceived ownership of money as the dependent variable. The overall regression model was significant (F (3, 296) = 3.86, $p < .01$). Closer examination of the model coefficients revealed no significant main effects of BiFW (β = .09, t = .62, $p > .53$) or endowment origin (β = -.19, t = -1.23, $p > .22$) on perceived ownership of money. However, the interaction term for BiFW and endowment origin did have a significant effect on perceived ownership (β = .40, t = 1.91, $p < .05$). Examination of the conditional effects supported the predictions of this essay. Specifically, when endowment origin was unearned, the effect of BiFW was not significant (β = .07, t = 0.91, $p > .36$). However, when endowment origin was earned, the effect of BiFW was positive and significant (β = .23, t = 2.97, $p < .002$). These results are consistent with the results of study 1, and provide further support for H1a and H2.

In addition to the median split performed above, another way of analyzing the data generated by study 3 is to use the spotlight and floodlight method (Spiller et al., 2013). In the present setting, a spotlight test examines the proposed interaction of BiFW and endowment origin on perceived ownership of money by comparing the perceived ownership of money of those with low BiFW to those with high BiFW within each level of endowment origin. However, what constitutes a 'high' and a 'low' BiFW? Prior work has used -1 and +1 standard deviations as the points of interest, but this approach is arbitrary, and sensitive to idiosyncratic properties of the sample being analyzed. The 'floodlight' method is a data-driven way to answer the question of what levels of BiFW should be compared. The floodlight method identifies the range of values of BiFW within which the effect of BiFW on perceived ownership of money is significantly different between levels of endowment origin.

Since the manual computation of these points in laborious, I will use the PROCESS macro for SPSS, which contains functionality for conducting spotlight/floodlight analysis (model 1 with Johnson-Neyman method enabled, Hayes, 2013). To begin, a linear regression model was used with BiFW, endowment origin, and their interaction term as independent variables, and perceived ownership of money as the dependent variable. Overall, this model was not significant ($F(1,296) = 1.88$, $p < .13$). The main effects of BiFW and endowment origin both failed to reach significance (both p's > 0.5), and the significance of the interaction term also failed to reach significance ($\beta = .24$, $p > 0.23$) Nevertheless, the pattern of results were directionally consistent with the prediction put forth herein. The conditional effects of BiFW on perceived ownership of money replicated the findings from the median split analysis reported above. Specifically, in the earned condition, the effect of BiFW on perceived ownership of money was positive and significant ($\beta = .33$, $p < 0.03$). In the unearned condition, the effect of BiFW on perceived

ownership of money was not significant (β = .09, $p > 0.53$). In other words, the effect of BiFW on perceived ownership of money in the earned endowment origin condition is significantly different from zero, but not significantly different from the effect in the unearned condition. A floodlight analysis could still be useful for revealing at what levels of BiFW, if any, the difference in perceived ownership of money across the earned versus unearned level of endowment origin is significant (see Figure 2). Consistent with the fact that the interaction term was not significant, the floodlight analysis revealed no values of BiFW at which the difference between perceived ownership of money in the earned condition was significantly different from perceived ownership of money in the unearned condition. Thus, this spotlight / floodlight analysis provided partial support for the predictions presented in this essay. In the earned condition, the effect of BiFW on perceived ownership of money was significant, and in the unearned condition, the effect was not. However, these two effects were not sufficiently different from one another to obtain a significant interaction term, or significant values of interest in the floodlight analysis.

One possible explanation for these results is that the independent variable (BiFW) and moderating variable (Endowment Origin) are not fully independent of each other. For instance, it could be the case that low BiFW individuals perceive their money as less earned than those with high BiFW. Since endowment origin was manipulated in this study, I will check for a relationship between BiFW and endowment origin via a linear regression model with BiFW as the independent variable and the manipulation check of endowment origin as a continuous outcome variable. The overall model was not significant ($F(1, 299) = 0.45$, $p > 0.50$), and the BiFW coefficient was also not significant (β = 0.14, $p > 0.50$). These results do not suggest the presence of a relationship between BiFW and endowment origin.

Finally, one of the objectives of study 3 was to demonstrate the robustness of the findings in study 1 by utilizing a different measure of BiFW. In study 1, BiFW was measured using the FAD+ scale, and in study 3, data for both the FWD and FAD+ scale were collected. To assess robustness, the same floodlight / spotlight analysis performed for the FWD scale above was conducted for the FAD+ measure of BiFW. Overall, the linear regression model was marginally significant ($F(1,296) = 2.37$, $p < .07$). The main effects of BiFW and endowment origin both failed to reach significance (both ps > 0.05), and the significance of the interaction term also failed to reach significance ($\beta = .24$, $p > 0.80$) Nevertheless, the pattern of results were directionally consistent with the prediction put forth herein. Specifically, in the earned condition, the effect of BiFW on perceived ownership of money was positive and significant ($\beta = .21$, $p < 0.05$). In the unearned condition, the effect of BiFW on perceived ownership of money was not significant ($\beta = .17$, $p > 0.08$). A floodlight analysis revealed no statistical significance transition points within the observed range of BiFW. Thus, this spotlight / floodlight analysis using the FAD+ measure of BiFW provided similar results to the analysis which used FWD.

Thus far, studies 1 and 3 supported the predicted positive effect of BiFW on the perceived ownership of money. Moreover, study 3 demonstrated that the effect is robust across a different measure of BiFW, and is moderated by endowment origin. Study 4 builds on the previous three studies in several ways. First, study 4 tests the interaction of BiFW and endowment origin on charitable behavior, and does so by manipulating both factors. Second, study 4 measures perceived ownership of money in order to perform mediation analysis. Study 4 also increases the managerial relevance of the proposed model in two ways. First, study 4 introduces a new, video-based manipulation of BiFW. This video-based manipulation of BiFW demonstrates that BiFW can be influenced by media other than words on a page, thus expanding

the media by which managers could influence changes in BiFW. Finally, study 4 uses a different measure of charitable intent.

STUDY 4

Design, Participants, and Procedure

Study 4 was designed as a 2 (belief in free will: low vs. high) by 2 (endowment origin: unearned vs. earned), between-subjects ANOVA. Four hundred participants were recruited from Mechanical Turk for a small monetary compensation. As a cover story, participants were told that they were participating in two studies: a learning study, and a study about beliefs and spending. Those that agreed to participate after reading the informed consent were taken to the learning study. Similar to study 2, the purpose of the learning study was to manipulate BiFW. However, instead of using a passage-based manipulation of BiFW, a new video-based manipulation of BiFW was introduced in study 4.

A new manipulation of BiFW was used for three reasons. First, I anticipated that this manipulation would increase attention to the stimulus since videos are a more engaging form of media than text. Second, it provides an ecologically valid manipulation of BiFW by presenting the information in a format that a consumer might encounter in their everyday lives on YouTube. Finally, it broadens the possible media by which BiFW can be influenced. In the low BiFW condition, participants were shown a five-minute video from a "TEDx" talk where the speaker argues that free will is an illusion. In the high condition, participants were shown a five-minute video from the TV series "How It's Made" where a narrator explains how paper molded containers are manufactured. I anticipated that this latter condition with a neutral stimulus would represent high BiFW since past research indicates that defaults BiFW is relatively high. (Baumeister et al. 2009; Shariff et al. 2014). Participants then completed a modified version of

the reading comprehension and attention check item described in study 2. As in study 2, participant attention was checked by embedding the following item in the comprehension quiz: "Which of the following statements confirms that participants are reading questions carefully? Please select the fourth option below to confirm that you are reading questions carefully." The fourth option was irrelevant to the content of either condition. Participants who answered anything other than the fourth item were excluded from the analysis. The actual comprehension items were altered to fit the content of the videos, i.e. they were called "comprehension questions" rather than "reading comprehension questions". After the learning task and attention check, participants were then taken to the beliefs and spending study.

The beliefs and spending study was designed to manipulate endowment origin using the same scenarios described in study 3. As in study 3, participants in the present study were initially asked to consider a scenario in which they had acquired $100. In the unearned endowment origin condition, they were asked to imagine that they won the $100 in a lottery, and in the earned endowment origin condition, they were asked to imagine that they had earned it through hard work. To encourage participants to elaborate on the scenarios, participants were also asked to take a moment and write about what they would think and how they would feel if they were actually in the scenario. On the next page, participants were asked to "think about the scenario more deeply" by imagining that they had received a flyer in the mail from their "favorite charity" requesting a $1 donation. Participants were asked to indicate how likely they would be to give $1 to their favorite charity from the $100 described in their scenario (1 – not at all likely, 9 – very likely). I used intent to donate a relatively small amount of $1 to minimize the problem of zero donations which I observed in the earlier study 2 and which has been observed in past research on charitable behavior as well (Smith, Faro and Burson 2012). Eliciting intent to donate for a

small amount would make it more likely for respondents to indicate a non-zero intent to donate (Fraser et al., 1988). Furthermore, measuring intent to donate differently from study 2 permits assessment of the robustness of results across a new measure of charitable behavior.

After indicating their charitable behavior, participants were asked some filler items related to their personality. Participants were then asked to indicate their perceived ownership of the $100 from the scenario they were shown using the same items described in study 3. Finally, participants responded to manipulation checks for BiFW and endowment origin. As in study 2, the BiFW manipulation was checked with a single-item measure on a 100-point slider. In addition, I used another two-item manipulation check of BiFW with the following items (Zheng, van Osselaer, and Alba 2016). These items read "Generally speaking, how much control do people have over their decision making" (1 – none at all, 7 – a lot) and "To what extent do you believe that people's free will can control their decision making?" (1 – to a very small extent, 7 – to a very large extent). The endowment origin manipulation was checked using the same items as in study 3.

Results

Twenty-eight participants failed the attention check item described earlier, and were removed prior to analyses, leaving a final sample size of 372. The manipulation of BiFW was checked by running a 2x2 ANOVA with BiFW and endowment origin as independent variables and the manipulation check for BiFW as the dependent variable. This analysis was done separately for the 100-point item and the 2-item scale. The two-item scale of BiFW was reliable (pearson's $r = .7$, $p < .001$), and so the items were averaged to provide a composite measure of BiFW. There was a main effect of BiFW ($F(1, 371) = 12.5$, $p < 0.001$), no effect of endowment origin ($F(1, 371) = 0.09$, $p < 0.77$), and no interaction effect ($F(1, 371) = 0.001$, $p < 0.98$).

Consistent with the manipulation, follow up comparisons showed that the two-item scale for BiFW was significantly lower in the low BiFW condition than in the high condition (M_{low} = 5.43 vs. M_{high} = 5.87, F (1, 371) = 12.5, p < .001).

A similar set of results was obtained using the 100-point scale. The BiFW manipulation produced a significant main effect (F(1, 371) = 6.98, p < 0.01), the endowment origin manipulation produced no effect (F(1, 371) = 1.00, p < 0.32), and the interaction effect was not significant (F(1, 371) = 0.04, p < 0.84). Consistent with the manipulation, those in the low BiFW condition indicated a lower average score on the 100-point BiFW manipulation check than those in the high condition (M_{low}=70.87 vs. M_{high}=77.03, F(1, 371) = 6.98, p < 0.01).

To confirm that the manipulation of endowment origin was effective, a 2x2 ANOVA manipulation check test was performed using the two-item manipulation check measure described in study 3. The two manipulation check items exhibited acceptable reliability (pearson's r = .85, p < .001), and were combined to provide a composite measure. The manipulation of endowment origin had a main effect on the endowment origin manipulation check (F(1, 371) = 536.74, p < 0.001), the BiFW manipulation had no effect on the endowment origin manipulation check (F(1, 371) = 0.02, p < 0.89), and there was no interaction effect (F(1, 371) = 1.21, p < 0.28). Followup analysis revealed that those in the unearned endowment origin condition indicated a lower sense of having earned the money than those in the earned condition ($M_{unearned}$ = 3.35 vs. M_{earned} = 6.49, F(1, 371) = 536.74, p < .001).

Recall that the goal of Study 4 was to test H1 – H2. To test for H1a and H1b, an 2x2 ANOVA was performed with BiFW and endowment origin as independent variables, and participants' likelihood of giving $1 as the dependent measure. This analysis revealed no

significant main effect of BiFW ($F(1, 371) = 0.22$, $p < .65$), or endowment origin ($F(1,371) = 0.55$, $p < .46$), or interaction ($F(1,371) = 2.28$, $p < .14$). Although the predicted interaction of BiFW and endowment origin was not statistically significant, the observed pattern of means was directionally consistent with H1a and H1b. H1a predicted that in the earned condition, those with a low BiFW would be more generous than those with high BiFW. Results showed that, in the earned condition, mean likelihood of giving was directionally higher in the low versus the high BiFW condition ($M_{low} = 6.96$ versus $M_{high} = 6.65$). Conversely, H1b predicted that, in the unearned condition, those with a low BiFW would be less generous than those with a high BiFW. Results showed that, in the unearned condition, mean likelihood of giving was directionally consistent with these predictions ($M_{low} = 6.73$ vs. $M_{high} = 7.31$). While these results fail to offer statistically significant support of H1a and H1b, it is worth nothing that the pattern of means is directionally consistent with H1a and H1b.

I also conducted an exploratory test of H2 using model 8 of the PROCESS macro for bootstrapped mediation analysis (Hayes 2013). BiFW was entered as the independent variable, endowment origin as the moderator, intent to give $1 as the dependent variable, and perceived ownership of money as the mediator. The perceived ownership of money scale was reliable ($\alpha = .89$), so participants' scale average was computed and used for analysis. In the unearned condition, the indirect effect of BiFW on charitable behavior through perceived ownership of money was not significant, as predicted ($\beta = .01$, 95% CI [-.03, .17]). In the earned condition, the indirect effect of BiFW on charitable behavior through perceived ownership of money was also nonsignificant ($\beta = -.01$, 95% CI [-.10, .04]). Similar to the directional effects on charitable behavior, the sign of the indirect effect in the earned condition was also consistent with H2 but

not statistically significant. Thus to summarize, the results of study 4 indicated directional, but not statistically significant support for hypotheses H1 and H2.

GENERAL DISCUSSION & FUTURE RESEARCH

In this essay, I investigated the effects of BiFW, endowment origin, and perceived ownership of money on charitable behavior. While previous research suggests a positive effect of BiFW on charitable behavior, I find preliminary evidence that BiFW can have a negative effect on charitable behavior through perceived ownership of money when endowment origin is earned. The model proposed in this essay was tested in four studies, using different manipulations and measures of belief in free will, as well as different measures of charitable behavior. Below, I describe the theoretical contributions and managerial implications of this essay and conclude with directions for future research.

Theoretical Contributions

The results of the four studies provide preliminary support for two contributions to the literature on BiFW. It must be acknowledged that these contributions are provisional, given the mixed results of the studies. With this caveat, the first contribution of this essay is the identification of endowment origin a new moderator of the effect of BiFW on charitable behavior. Prior research has found that BiFW increases moral behavior (Vohs and Schooler 2008), prosocial behavior (Baumeister et al. 2009), feelings of gratitude (MacKenzie et al. 2014), job performance (Stillman et al. 2010), learning from negative emotions (Stillman 2010), academic performance (Feldman et al. 2016), and self-control (Rigoni and Kühn 2016). Thus, prior work generally concludes that more BiFW is a good thing for the self as well as society. In contrast to previous research which has reported a positive effect of BiFW on prosocial behavior,

the results of study 2 indicate that BiFW has a negative effect on charitable behavior when endowment origin is earned. Notably, past research has been restricted to the examination of main effect of BiFW on outcome variables. This essay adds nuance to our understanding of BiFW by showing that the effect of BiFW on charitable behavior on charitable behavior is contingent on the moderator of endowment origin.

The second contribution of this essay is to present evidence for the role of perceived ownership of money as a new mechanism underlying the effect of BiFW on charitable behavior. Prior work on perceived ownership has primarily examined it in the context of products (Peck and Shu, 2009 & Shu and Peck, 2011). There have been very few studies (cf. Shu and Peck, 2011 for an exception) which have examined perceived ownership of money, a variable of interest in this essay. Furthermore, this essay is the first to examine perceived ownership of money as a mediator of the effect of BiFW on charitable behavior. Studies 1 and 3 provide support for the theorized relationship between BiFW and perceived ownership of money. Study 1 demonstrated that, in the earned endowment origin condition, the relationship between belief in free will and perceived ownership of money was positive. This result was replicated in study 3, which used a different measure of BiFW, and also found that this effect was attenuated when endowment origin was unearned. Study 4 found directional support for the prediction that the effect of BiFW on charitable behavior in the earned endowment origin condition is mediated by perceived ownership of money.

Managerial Implications

The findings of this essay suggest several steps that can be taken by charity managers to increase donations. First, charity managers should pay attention to whether the audience they are appealing to is donating with earned or unearned money. If they are donating with earned

money, then an appeal which reduces BiFW will be more effective than one which increases BiFW. Since most of the money that most people possess is earned, it seems likely that prospective donors will be thinking about donating from earned funds in most real-world cases. However, at certain times of the year such as tax return season or Christmas bonus time could be associated with a greater presence of unearned funds. Second, depending on whether individuals are donating from earned versus unearned funds, a charity manager should place their appeal near content that either refutes or supports BiFW. Specifically, when prospective donors are likely to be donating with earned funds, an appeal near media content that refutes free will should be more effective than one that is near media content that supports free will. However, when prospective donors are likely to be donating with unearned funds, an appeal close to media content that supports free will should be more effective than one that refutes free will.

Limitations and Future Research

There are several limitations of this essay that need to be acknowledged and addressed in future studies. First, the manipulation of BiFW could be strengthened in future studies. The manipulation of BiFW in the present studies was not especially strong, which may account for some of the nonsignificant findings. First, the magnitude of the difference in the manipulation check means between the low and the high conditions in both studies 2 and 4 constituted a modest proportion of the scale length. In study 2, which used a 100-point slider to check the BiFW manipulation, the difference between the low and the high BiFW conditions was 8.74. In other words, those in the low condition expressed a BiFW that was, on average, only 8.74% lower than those in the high condition. Similar values were observed for the manipulation check items in study 4 (6.29% of the 7-point scale, and 6.16% of the 100-point scale). So, despite the fact that the manipulation did in fact produce significant differences in the manipulation check

means, these differences may not have been large enough to produce statistically significant differences in charitable behavior. This led me to consider that perhaps BiFW was a 'sticky' belief that people are reluctant to change their minds about. A closer look at the manipulation check data for studies 2 and 4 supported this latter view.

To see if participants were resistant to having their BiFW reduced, I examined the distributions of the manipulation checks in studies 2 and 4. If participants in the low conditions indicated a high BiFW, then one could reasonably conclude that the manipulation had not succeeded in reducing their BiFW. I found that the modal response to the BiFW manipulation check measures was, in fact, the maximum possible scale response. In study 2, twenty-eight out of one-hundred and twenty (23%) of participants indicated the maximum possible endorsement of BiFW. Study 4 showed similar results. Specifically, eighty-three of the three hundred and seventy-two (i.e. 22%) participants indicated the maximum possible endorsement of BiFW. Thus, it is possible that general beliefs about free will are sticky, and a single video or article may be insufficient to change the minds of most of the people who encounter it. Below, I offer some potential methods to overcome this difficulty in future studies.

I would argue that the central challenge in manipulating BiFW is that the belief is resistant to change. Intuitively, people might feel that they are in control of at least some of their choices, and have felt this way for as long as they can remember making choices. As such, people probably have a strong impression that free will is self-evidently true. Thus, when faced with arguments that free will is not true, they may simply require more exposure to counter-free will arguments and evidence than was delivered to them in the studies reported here. For example, Shariff et al. (2014) studied the effect of BiFW on retributive punishment. They hypothesized that BiFW would increase retributive punishment and they found this effect in four

studies. In their fourth study, they used a naturalistic manipulation of BiFW wherein they compared students from a cognitive neuroscience class to students in a geography class. They argued that students in the cognitive neuroscience class would have a lower BiFW than those in the geography class as a result of learning about the mind in mechanistic, neuroscientific terms. Future research on BiFW and charitable behavior might use such manipulations involving repeated exposure to scientific facts about the mind which challenge the notion of free will.

A second method for improving the manipulation of BiFW is to do it in a way that violates the sense of free will directly. Recall my earlier argument that the subjective 'obviousness' of free will is probably one of the main reasons why it is so difficult to reduce BiFW in the lab. In other words, explaining to someone with text or lecture that their sense of free will is an illusion does not make the illusion any less compelling. However, breaking the illusion itself might be a powerful way of manipulating BiFW because it addresses the crux of BiFW's resilience to change. How might one break the illusion of free will? Previous work has shown that participants' sense of agency can be significantly reduced when participants are exposed to a "thought insertion" task (Olson, Landry, Appourchaux, and Raz, 2016). Specifically, participants were deceived into believing that a number that they freely chose was actually inserted into their mind by a new neuroscience machine that the researchers were testing. In this task, a trained magician acted like a lab technician, and was responsible for conveying the illusion that a person's chosen number was actually implanted by the machine. A second version of the task changed the meaning of the illusion from thought insertion to thought reading. Those who had numbers inserted by the machine exhibited a greater reduction in their sense of agency than those who simply had their numbers read by the machine. Such an illusion

could be an effective means of manipulating BiFW in future research, as the thought-insertion task could provide a compelling sense that free will is illusory.

Finally, another approach to improving the operationalization of the BiFW construct could be sample from populations that have greater variance in BiFW. In the present investigation, all participants sampled were residents of North America. North American values of meritocracy, freedom, and independence are all consistent with a worldview that endorses the existence of free will. Future work might be aided by sampling from a country with a lower baseline BiFW and then comparing this sample to the North American one.

A second limitation of this essay is that the moderating role of endowment origin assumes that earned money is acquired via choice and unearned money is not. Is it always the case that earned money is acquired via choice? Consider a person who lives paycheck to paycheck. Every month, they spend nearly every penny of their paycheck just to cover their living costs. For such a person, work is not really a choice, it is a requirement for survival. So it is possible that the underlying assumption linking earning and choice does not always hold. Hence future research can directly manipulate the linkage between earning and choice to examine if my proposed model holds when the linkage is present, and does not hold when the linkage is absent. The linkage between earning and choice could be manipulated in the following way in a future study. Similar to study 2 reported here, all participants will perform an earning task wherein they are given money in accordance to their performance on the earning task. For instance, $0.50 per math problem correctly solved. In the choice condition, participants would be given the opportunity to not participate in the earning task. In the no choice condition, participants would simply be instructed to complete the task. The theorizing presented in this

essay would predict that the effect of BiFW on charitable behavior should be more negative in the choice condition than in the no choice condition.

A third limitation of this investigation is that the measurement of charitable behavior in study 2 was problematic. Specifically, many participants decided to give nothing when they were given the opportunity to donate in study 2. A preponderance of 0s in donation data increases variance and can reduce statistical power. For the task-based measure of charitable behavior in study 2, it's possible that this preponderance of 0s was a result of the granularity of the response options provided to participants in the study instrument. Specifically, participants were given $0.25, and could only donate 0, 5, 10, 15, 20, or 25 of those cents. Since five cents is fully one fifth of the twenty five cents they earned, most participants might have felt it was just too large a share to part with, and selected zero instead. Future work using real monetary donations could address this issue by either using open-ended measures, or by using more granular response options. Additionally, future work could set up the charitable behavior task in a way that encourages baseline giving across all conditions. For instance, providing respondents with small bills or coins from which to donate, or making participants' donations less anonymous by running participants in groups, rather than all at once. Such factors might reduce the number of non-donors and thence increase statistical power, making effects easier to observe.

A fourth limitation in this investigation is that I do not rule out alternative explanations for the negative effect of BiFW on charitable behavior observed in study 2. While I argue that perceived ownership of money explains the effect, and I find preliminary evidence that BiFW does affect perceived ownership of money as predicted, it's possible that other mediators are operative. For example, one alternative explanation is that BiFW affects perceptions of control, and that people with a low sense of control are more compliant with requests for money.

Perceived control has been defined as the ability to demonstrate one's competence and mastery over the environment (Hui and Bateson 1991). Recall that BiFW is defined as the extent to which one believes that one's choices are primarily determined by one's sense of agency, rather than prior events. With a low BiFW, any choice to demonstrate competence or mastery of the environment should be perceived as driven primarily by prior events, not one's sense of agency. Thus, one is not in control of demonstrating competence or mastery. As such, a reduction in BiFW could be accompanied by a reduction in perceived control. How would control affect charitable behavior? In general, people find perceived control aversive which may create a negative mood (Hui and Bateson 1991). However, research has shown that spending money on others, including donations, improves mood (Dunn et al. 2008; Aknin et al. 2011, 2012, 2013). Thus it is possible that people would compensate for the low mood associated with low perceived control by donating in order to improve their mood.

The present investigation utilized an experimental approach to establish cause and effect relationships between the focal variables. However, it is possible that the variables proposed in the conceptual model are not orthogonally related to one another. To account for this, structural equation modelling could be used as an alternative approach in the future. Structural equation modelling requires the measurement of all of the proposed variables. Since measuring all variables at once can lead to common method bias, it would be important to obtain a measure of charitable behavior that is unlikely to be contaminated by such bias. One possible route is to simply use real donation data by asking participants to submit copies of receipts from their prior charitable donations, or to simply measure charitable behavior at a separate point in time, perhaps a week before or after the main survey.

In the present investigation, I examine the role of perceived ownership of money by measuring it in studies 1, 3 and 4. However, an opportunity for future research is to test the role of perceived ownership of money by manipulating it directly. Previous research on perceived ownership suggests that perceived ownership of money can be manipulated in at least two way, namely length of ownership (Strahilevitz and Loewenstein 1998) and touch (Shu and Peck 2009). Length of ownership refers to the amount of time that a given thing has been possessed by someone. Longer lengths of time are associated with greater degrees of perceived ownership. To manipulate perceived ownership of money in the present context, one could manipulate the length of time that participants possess the sum of money that they are asked to donate from. Specifically, in the low perceived ownership of money group, participants would be given $5 immediately before the donation solicitation, as the final two steps in a somewhat lengthy (30 minute) procedure. In the high ownership of money group, they would be given the $5 at the very beginning of this lengthy procedure, and then only asked to donate some of that $5 as the very last step in that procedure. This approach controls for the overall length of the procedure while manipulating the amount of time that participants possess a sum of money.

A second way that perceived ownership of money could be manipulated is to manipulate whether or not participants can touch the money before making their donation decision. Previous work has shown that touching an object increases perceived ownership of that object (Shu and Peck 2009). In the no touch condition, participants would be told that they are eligible to receive up to $5, but before they receive this money from the experimenter, they should indicate how much of that money they would like to donate to a charity. They would then receive the difference in cash. In the touch condition, participants would be handed the $5 in cash directly, and then asked to consider donating some of it. For both of the manipulations of perceived

ownership of money outlined above, one would expect to find that the negative effect of BiFW on charitable behavior is stronger in the high perceived ownership of money condition. In the low perceived ownership of money conditions, the effect of BiFW on charitable behavior should be attenuated. Either of these manipulations could serve as a basis for a deeper investigation into the perceived ownership of money mechanism.

In this essay, it is argued that BiFW affects perceived ownership of money because the level of BiFW should alter one's perceived responsibility for one's own choices. Specifically, with a low BiFW, one's choices are relatively more determined by prior events, not oneself, and thus, one feels less responsible for said choices. With a higher BiFW, one's choices are relatively more determined by one's own sense of agency, and thus, one feels more responsible for them. In effect, responsibility is a mechanism in between BiFW and perceived ownership of money. While it is outside the scope of the present investigation, future research could validate this assumption by performing a serial mediation analysis by inserting responsibility as a mediating variable between BiFW and perceived ownership of money.

To conclude, this essay investigated the effects of BiFW, endowment origin, and perceived ownership of money on charitable behavior. The results of four studies provided preliminary support for the effects of these variables on charitable behavior and thus gave greater insight into the drivers of charitable behavior.

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APPENDIX

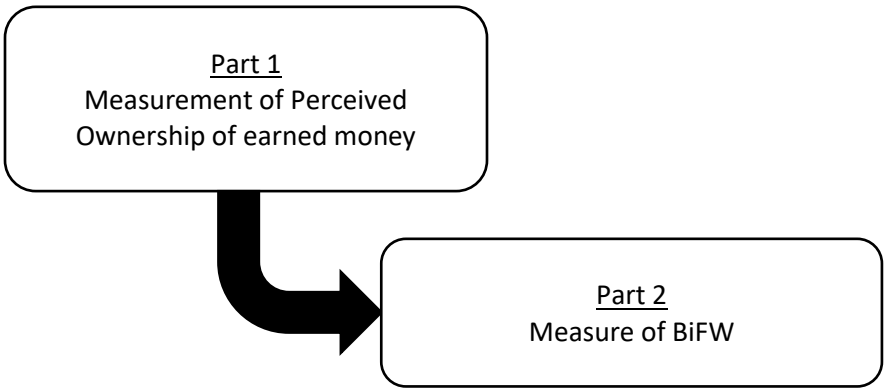
Appendix A – Measures of Belief in Free Will

The FAD+ scale
Factor 1: Free Will
People have complete control over the decisions they make.
People must take full responsibility for any bad choices they make.
People can overcome any obstacles if they truly want to.
Criminals are totally responsible for the bad things they do.
People have complete free will.
People are always at fault for their bad behavior.
Strength of mind can always overcome the body's desires
Factor 2: Scientific Determinism
People's biological makeup determines their talents and personality.
Psychologists and psychiatrists will eventually figure out all human behavior.
Your genes determine your future.
Science has shown how your past environment created your current intelligence and personality.
As with other animals, human behavior always follows the laws of nature.
Parents' character will determine the character of their children.
Childhood environment will determine your success as an adult.
Factor 3: Fatalistic Determinism
I believe that the future has already been determined by fate.
No matter how hard you try, you can't change your destiny.
Fate already has a plan for everyone.
Whatever will be, will be—there's not much you can do about it.
Whether people like it or not, mysterious forces seem to move their lives.
Factor 4: Unpredictability
Chance events seem to be the major cause of human history.
No one can predict what will happen in this world.
Life seems unpredictable—just like throwing dice or flipping a coin.
People are unpredictable.
Life is hard to predict because it is almost totally random.
Luck plays a big role in people's lives.
What happens to people is a matter of chance.
People's futures cannot be predicted.

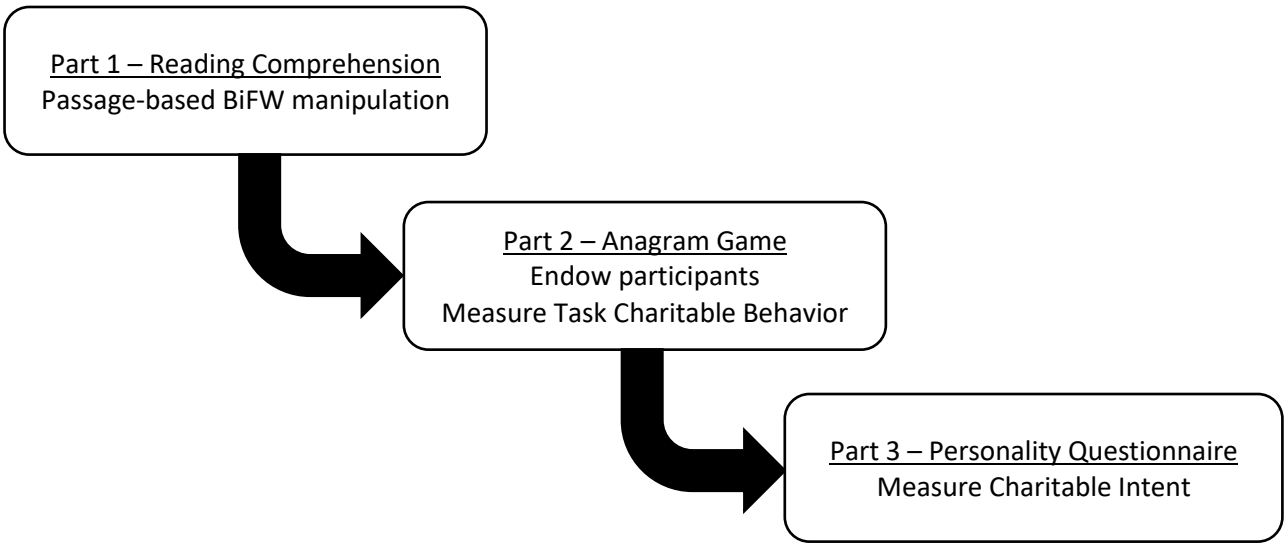
The FWD scale
Factor 1: General Will
Each person's decisions are guided by a larger plan.
Human beings actively choose their actions and are responsible for the consequences of those actions.
Free will is a basic part of human nature.
A person must accept responsibility for his or her choice of action.
Life's experiences cannot eliminate a person's free will.
A person is to blame for making bad choices.
A person should receive appropriate punishment for choosing to engage in bad or harmful behaviors.
A person who makes a poor decision should experience the consequences of that decision.
People have free will regardless of wealth or life circumstances.
A person's choices are limited by a higher power's plan for him or her.
A person is accountable for the decisions he or she makes.
Free will is part of the human spirit.
A person is responsible for his or her actions even if his or her childhood has been difficult.
A person always has choices and therefore should be punished for making choices that harm others
Factor 2: Personal Will
I am in charge of the decisions I make.
I actively choose what to do from among the options I have.
I am in charge of my actions even when my life's circumstances are difficult.
My decisions are influenced by a higher power.
I have free will even when my choices are limited by external circumstances.
I decide what action to take in a particular situation.
My choices are limited because they fit into a larger plan.
I have free will.

Appendix B – Visual overview of study procedures

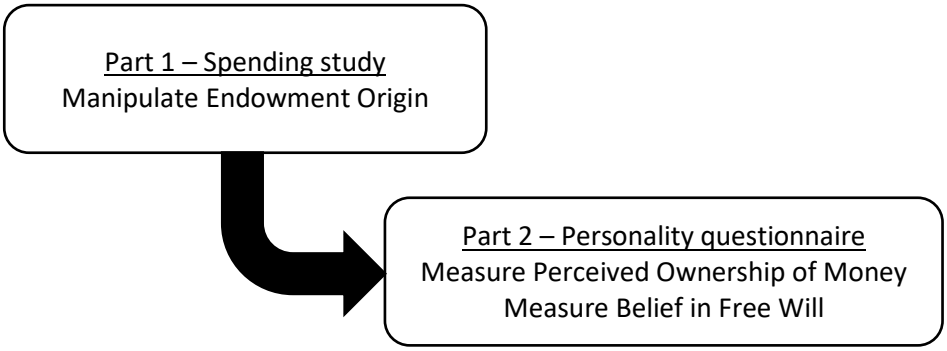
Study 1 –



Study 2-



Study 3 –



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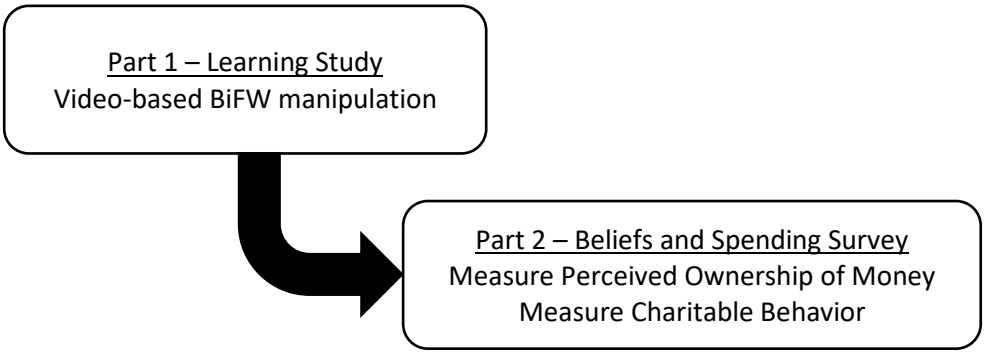

Appendix C – Passages used in study 2.

Low BiFW condition

Science Supports the Idea That Free Will Does Not Exist
By Dr. Chris Wellington, Ph.D.

Everything people are and do is the product of simple, physical processes in their brains. What people experience as conscious thoughts, memories, emotions, and choices, is really no more than a series of chemical interactions and electronic pulses. Because scientists are able to predict all physical reactions by using the laws of science, it is plausible that, given enough information, scientists will someday be able to predict all of a person's behaviors. Free will is an illusion.

Modern science has now shown that humans are governed by the same processes as all other living things. Everything from bacteria to human beings operates by closely related processes at the chemical level. Similarly, ideas about evolution have demonstrated that all plants and animals have been formed by the same natural means. Therefore, while humans may differ in their complexity, their bodies and brains are no different than anything else. There is no need for the existence of a soul or free will to explain how we behave.

Experience tells people that they act as they please, and so most people think they have free will. However, where do these desires and impulses come from? In fact, people are usually not aware of why they perform many of their actions. In many cases, people will come up with reasons for the way they acted, but they are largely unaware of the forces driving their behaviors. Actions are determined not only by conscious thoughts, but by a whole range of information that the brain processes below people's awareness. These processes can be broken down to the same simple, predictable processes described by chemists and physicists. Although people appear to have free will, their behaviors, choices, and even their thoughts have already been predetermined by their bodies, their environments, and the laws of science.

High BiFW condition

Science Supports the Idea That Free Will Exists

By Dr. Chris Wellington, Ph.D.

Everything people are and do is mostly a product of the decisions they make and their free will. People typically control their own conscious thoughts, consider different possibilities, and ponder on whatever memories they choose. These factors have been shown to be the main components that contribute to the choices people make. These factors are also under direct control of the individual person. Furthermore, scientists have not been able to predict all physical reactions by using the laws of science. Because of this, scientists and philosophers have generally agreed that free will is not an illusion.

Modern science has now shown that human brains are the most complex living thing in the known world. Everything else, from bacteria to non-human animals operates by much simpler processes at the level of the brain and cognition. Humans have the ability for abstract thought. This means that human's thoughts are not limited to the here and now, but can go far back into the past and deep into the future. People's choices are guided by this conscious ability for abstract thought because they can think about future consequences or past mistakes. Therefore, there is a strong need to consider free will when trying to explain human behavior.

Everyday experience tells people that they act as they please, and so most people realize that they have free will. People are usually well aware of why they performed a particular action or made a certain decision. In many cases, when people are asked to explain why they made a certain choice, they can easily explain the factors that led up to that choice. This is because any action or choice a person makes is ultimately up to that person's direct conscious control. In conclusion, science has come to understand that free will is something that each person has and it is an important part of human nature.

Table 1: Definitions of Belief in Free Will

Article	Definition
Alquist et al., 2014	Belief in free will is the extent to which a person believes that their conscious sense of choosing and controlling is not illusory.
Baumeister et al., 2009	Belief in free will is the extent to which a person believes that choices represent events in which more than one outcome is possible.
Clark et al., 2014	Belief in free will is the extent to which a person believes that human thoughts and actions are freely and intentionally enacted.
Feldman et al., 2014	Belief in free will is the extent to which a person believes that their actions are based on their own deliberate choices.
MacKenzie et al., 2014	The ability to act based on personal choices, thoughts, and feelings without internal or external constraints.
Shariff et al., 2014	Belief in free will is the extent to which a person believes that their choices and actions are not fully determined by prior events
Vohs & Schooler, 2008	The belief that one determines one's own outcomes
Stillman & Baumeister, 2010	Belief that agents (people) are the source of free actions in a way that is not completely reducible to their emotional or motivational states

Table 2: Belief in Free Will and Related Constructs

Construct	Definition	Measurement
Belief in Free Will	The extent to which a person believes that their choices are predominantly determined by their own sense of agency, rather than prior events in the universe (Shariff et al. 2014)	Free will And Determinism Plus scale (FAD+; Paulhus and Carey 2011) Free Will and Determinism scale (FWD; Rakos et al. 2008)
Implicit Personality Theory	The extent to which personal traits are perceived as fixed versus malleable (Dweck et al. 1995)	Implicit person theory measure (Dweck et al. 1995)
Locus of Control	"The degree to which the individual perceives that the reward follows from, or is contingent upon, his own behavior or attributes versus the degree to which he feels the reward is controlled by forces outside of himself and may occur independently of his own actions" (Rotter 1966, p. 1)	Internal Control Index (ICI; Duttweiler 1984)
Self-Efficacy	The belief that one has the capacity to perform required actions to gain desired outcomes (Bandura 1977)	General Self-Efficacy scale (GSE; Chen, Gully, and Eden 2001)

Table 3: Descriptive Statistics for all studies

Panel A: Study 1 (N = 320)

Variable	Mean (SD)
Belief in Free Will *(1 to 5 scale)*	3.68 (0.67)
Perceived Ownership of Money *(1 to 7 scale)*	5.49 (1.39)

Panel B: Study 2 (N = 120)

Variable	Condition	Mean (SD)
Charitable Intent *(open response item)*	Low BiFW	163.96 (448.49)
	High BiFW	112.64 (300.33)
Task Charitable Behavior *(from 0 cents to 25 cents)*	Low BiFW	4.91 (8.79)
	High BiFW	3.40 (7.12)

Panel C: Study 3 (N = 300)

Variable	Condition	Mean (SD)
FWD BiFW	Unearned EO	3.77 (.54)
	Earned EO	3.68 (.52)
FAD+ BiFW	Unearned EO	3.79 (.76)
	Earned EO	3.71 (.73)
Perceived Ownership of Money	Unearned EO	6.25 (.87)
	Earned EO	6.27 (.97)

Panel D: Study 4 (N = 400)

Variable	BiFW condition	Endowment Origin condition	Mean (SD)
Perceived Ownership of Money	Low	Unearned	6.06 (1.19)
	High	Unearned	6.21 (1.11)
	Low	Earned	6.23 (1.08)
	High	Earned	6.19 (.97)
Charitable Intent	Low	Unearned	6.88 (2.95)
	High	Unearned	7.27 (2.73)
	Low	Earned	6.89 (2.78)
	High	Earned	6.68 (2.81)

Figure 1: Proposed Model for Essay 2

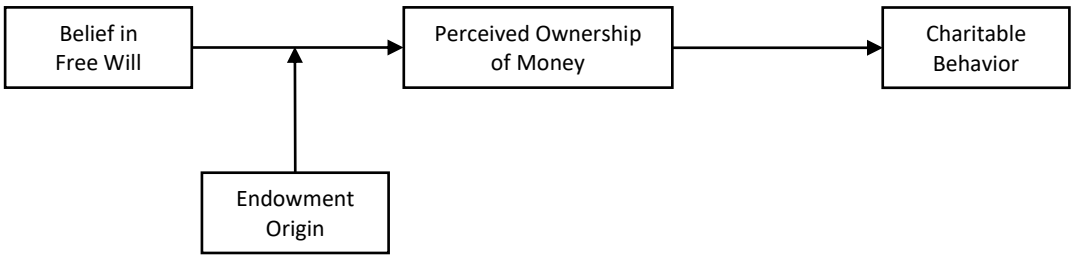

Figure 2: BiFW and Endowment Origin on Perceived Ownership of Money (Study 3)