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The Role of Feelings of Endowment in Charitable Giving Decisions

A dissertation submitted in partial satisfaction of the requirements for the
degree of Doctor of Philosophy in Management

by

Ashley Angulo

2017

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ABSTRACT OF THE DISSERTATION

The Role of Feelings of Endowment in Charitable Giving Decisions

by

Ashley Angulo

Doctor of Philosophy in Management

University of California, Los Angeles, 2017

Professor Noah J. Goldstein, Chair

This dissertation investigates how feelings of ownership drive people to donate their physical goods (in lieu of making monetary donations) to charitable organizations during relief campaigns. In a mix of scenario and laboratory studies, we demonstrate that people are more likely to donate items they feel a stronger (versus weaker) sense of ownership over all while holding objective ownership and the tangibility of donation options constant. Importantly, this work demonstrates a reversal of the often-documented consequence of endowment effect in for profit contexts, in which stronger feelings of ownership over an item typically increases the difficulty in parting with the item. Consistent with previous work on the endowment effect, we find stronger feelings of ownership increase owners' valuation of the item in donation markets. However, counter to traditional endowment effect outcomes, this increased expectation of value to the receiver in turn increases, rather than decreases, the likelihood that donors will part with their own items and items over which they feel stronger feelings of ownership.

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2017

Dedication

If it takes a village to raise a child, then it must take full Universities to get a student to this point. There are many people to thank that have propelled me along this path. To my undergraduate labs at Chicago, who encouraged me and provided important advice, thank you. To Benjamin Converse specifically, who trusted me and helped me learn how to articulate my inner monologue.

To the faculty at UCLA, importantly my committee members who seamlessly provided feedback alongside many a pun and smile. Noah J. Goldstein, my academic advisor, who may not endorse ceremonial recognitions of the flamboyant variety, thank you. Thank you for taking a chance on me, for feeding me, for making sure I had funding, for making me laugh. You have provided such a model through your actions, explicit advice, and how you treat others and conduct yourself. I appreciate learning from your professionalism and personal anecdotes.

To the Management and Organizations area at Anderson, thank you. To Joseph Boroumand, specifically, thank you for keeping me afloat and helping me conduct the administrative tasks of my career. More embarrassingly, thank you for lending me the spare key to the office when I would forget mine. To the kind and intelligent office mates of A-4.17, thank you for making the space smell nice, providing snacks, giving hugs, and writing wonderful messages on the whiteboard. Having you as colleagues has meant so much and I will certainly miss you all. That office was my second home and I cherished you all as brilliant, hilarious, roommates. To the other Anderson students who did not share our space, I will miss you as well and will think about the mark we have left by creating the PhD Advisory group.

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flowers, alcohol, karaoke, hugs, road trips, brunch, TV-watching, and dancing, thank you! We all collided for different reasons, and I am so grateful that we did. Some of you I met my first year, and I cherish how much we have witnessed each other grow. You are my family and you will be with me forever, barring any of you denounce my favorite things or force me to watch Community.

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To my brother, Nicholas, who was my first competitor. Thank you for instilling in me a passion to try. Because of our four year age difference, in order to attempt to match you in games and sports I had to think ahead. You did not know it, but because of you I learned to be creative. I wanted to be as good as you at everything. I remember taking riskier joke trajectories just for the chance to make you laugh. You have encouraged me to take risks (some that ended in reconstructive dental work) and others that have made me shed the comfort of familiarity. Thank you for being the best big brother.

To my father, Thomas. Thank you for reading to me, teaching me synonyms, and sharing with me our family’s history. I think some of my persistence is due in large part to the stories you shared of your father, my grandfather, Tomas. I am not sure if I should thank you for cultivating my sense of humor since now I am the instigator of eye rolls when I share a knee slapper with friends.

To the supporting cast of characters in my family that never sequestered their influence to their title. Thank you to my grandparents, aunts, uncles, cousins, and step-family. I felt your support every step of the way. Thank you for investing in my education so early on, I am so grateful to have you all in my life.

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Table of Contents

Introduction	1
Ownership	3
The Endowment Effect	4
Giving Literature	8
Research Overview	13
Experiment 1	14
Experiment 2	20
Experiment 3	24
Experiment 4	29
General Discussion	36
Conclusion	40
References	42

List of Figures and Tables

Figure 1.....	18
Figure 2.....	18
Figure 3.....	18
Figure 4.....	22
Figure 5.....	22
Figure 6.....	23
Table 1.....	27
Figure 7.....	28
Table 2.....	28
Figure 8.....	35

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Introduction

“It happens in every disaster: People want to help, but they often donate things that turn out to be more of a burden.”
-Pam Fessler, NPR, 2013

Following natural disasters charitable organizations often struggle to deal with the deluge of physical contributions sent by well-meaning donors. After the devastating tsunami that hit Indonesia in 2004, for example, medical aid was flown in to the disaster zones at such high volumes that volunteers named the influx “the second disaster” (Simon, 2016). Volunteers were inundated and unable to organize and disperse life-saving antibiotics—eventually incinerating millions of dollars’ worth of medical aid. Many charitable organizations dealing with such issues require fungible cash to help those in need, yet tons of physical donations come in, filling huge warehouses and overwhelming volunteers. During relief campaigns charitable organizations find themselves spending their limited budgets and personnel on organizing physical donations by individuals (e.g. batteries, blankets, and aspirin) instead of spending monetary resources on administering necessary goods to those in need (such as food and water). Even the most experienced charities like the American Red Cross have this problem (Arovosis, 2012). In 2010 alone, The Salvation Army reportedly spent \$10.5 million on landfill costs associated with disposing of materials that could not be reused or distributed to victims (Consumer Reports, 2011). In order to deal with the overflow (in one case a swimming pool’s worth of clothing), the market has responded with smaller agencies that help the larger ones manage and allocate the overwhelming amount of goods (planetaid.org). Clothing is one of the most common and least helpful items that get donated, and the quality of the clothes donated ranges widely (Fessler, 2013). Bottled water is a less common but an objectively better item to send (primarily because it is helpful in almost any disaster and is non-perishable). While

shipping water is better than other items, it still represents a huge opportunity-cost compared to donating money. For instance, the director of the of the Center for International Disaster contrasted a relief agency's ability to deliver 100,00 liters of water at the cost of \$300 by installing onsite "water purification units" to the estimated cost of \$300,000 that donors spend in purchasing, shipping and volunteers organizing the equivalent amount of bottled water (Kernis, 2016). The range of donated products and their utility and quality reflects a more diverse picture than just people relinquishing their used or sordid items. Following the earthquake that shook Haiti in 2010, American women went so far as to send something unused, fresh, and rich in nutritional content-breast milk (Kernis, 2016). Stories abound of people making large financial investments to ship their new and used items many miles to people in need.

Parting with one's previously owned items (with no promise of financial compensation) is clearly a very popular form of charity, and at first glance this type of behavior would seem contrary to more than thirty-five years of decision making research which suggests parting with ones owned goods should be met with reluctance (e.g. Thaler, 1980; Kahneman, Knetsch, & Thaler, 1990; Knetsch, 1989). Across multiple media outlets and anecdotal reports, during relief efforts people donate a lot of their previously owned things, sometimes in lieu of monetary donations. This evidence is surprising because according to the decision-making literature, in for-profit contexts people experience more difficulty in parting with things they feel more ownership over (e.g. physical goods they've owned longer) than for tokens or purely substitutable goods (e.g. money) (Kahneman, Knetsch, and Thaler, 1990). The current work seeks to reconcile the research that shows reticence amongst people in parting with their things with the relief anecdotes described above, where people go to great efforts to ensure someone in need receives their previously

owned items.

Ownership

Philosophers, organizational scholars, and marketers have all spoken to the power of possession. When outlining the three categories of human life, Sartre defined “to have” as a defining category (along with “to be” and “to do”), providing us with the Cartesian quote of “I am what I have” (Sartre, 1943/69). Other philosophers argued civilization’s existence hinged on the notion that there were things that were ours and not ours, and law and order was created to enforce these divisions of property (Rousseau, 1762/1950; Locke, 2014). Understanding what constitutes “mine” and “not mine” develops as early as two years old in children (Rochat, 2010). Feeling ownership is a critical part of our livelihood and contributes to our well being at work (Pierce, Dirks, Kostova, 2003). Simply feeling ownership is associated with positive emotions related to competence and pride (White, 1959) and as our collections grow so too does our happiness (Formanek, 1991). Feelings of ownership shape how we organize society (Hockett, 2005), our satisfaction with labor (Dirks, Cummings, & Pierce, 1996; Pierce, Kostova, & Dirks, 2001; Pratt & Dutton, 1998), and individual decision-making (Morewedge et al; Beggan, 1992). Feeling the influence of ownership is not restricted to having objective or legal ownership.

Psychological ownership is a state or feeling of possession that need not be objectively or legally acknowledged (Wilpert, 1991). The possession is felt towards a target that could be tangible (e.g. a book) or intangible (e.g. an idea). The term “psychological ownership” was born out of the organizational theory literature, as a measure of how much ownership employees felt over their work or company (Pierce, Kostova, & Dirks, 2001). In the marketing literatures, a related term of “perceived” ownership refers to the subjective state of ownership, and is typically used as a

dependent variable (Peck & Shu, 2009). In the economic and judgment and decision making literatures, an owned item is integrated as part of one's endowment (Thaler, 1980). "Pseudo-endowment", is a feeling of ownership studied amongst bidders in online auctions. Individuals with the highest bids (prior to the end of the auction) begin to imagine they own the item they are bidding on and start to treat it as part of their personal endowment (Ariely & Simonson, 2003).

The Endowment Effect

Prior to formal experiments measuring buyers' and sellers' actual valuations (i.e. prices), Thaler referred to the phenomenon of individuals valuing an item more as soon as they own it as "the endowment effect" (1980). His theorizing was consistent with the "mere ownership" effect, which went on to demonstrate owners indicate more favorable attitudes towards the items they owned compared to identical items they did not own (Beggan, 1992).

The endowment effect helps explain why sellers typically ask for more money to part with their goods than buyers typically offer to secure the same good (Kahneman, Knetsch, and Thaler, 1990). In the original experiments, participants were either assigned to the role of sellers who were recently given a mug or buyers (not endowed with a mug). Using a set of prices (ranging from \$0 to \$9.50), sellers indicated at each price whether they would accept the money and part with their mug or not, while buyers selected from the same price set, and for each monetary amount indicated whether they would be willing to pay that price to secure the mug or not. The researchers found that on average sellers required much higher prices to part with their mug than buyers indicated they were willing to pay for the mug, suggesting owners value the goods they own more than non-owners value those same items.

Researchers have used buyer-seller designs to measure the lowest prices that sellers are willing to accept in order to part with their item. The price sellers list is meant to be a proxy for how willing or resistant they are to part with their good. The outcome of sellers demanding more money and therefore being more resistant to part with their good has been documented across different objects including but not limited to lottery tickets, coffee mugs, chocolate bars, pens, movie tickets, hunting licenses, unpleasant liquids, and sandwiches (for a review, see Horowitz & McConnell, 2002).

Moderators of Endowment Effects

In a review of forty-five studies on the endowment effect, researchers discovered that the less substitutable an item, the greater the ratio of Willingness to Accept prices to Willingness to Pay prices (or WTA/WTP) (Horowitz & McConnell, 2002). Money or tokens for example, are seen as quite substitutable and do not afford the seller subjectivity in terms of personal value. This suggests that the type of item that is being considered can influence the valuation of the good from the perspective of the seller and buyer. This work in particular provides some theoretical backing to endowment effects in charitable giving. From the donor's perspective, because the item is theirs, they may view it as less substitutable and more idiosyncratic (e.g. everyone may have an iPhone, but my iPhone is mine and as a result special). As a consequence of feeling their owned items are unique, they may increase their WTA price and this would be much greater than a price offered by a buyer who merely sees an iPhone for what it is, just a smart phone. Perhaps in donors' eyes, there is no substitute or comparable item, and that is what increases the valuation. Importantly though, based on past endowment effect findings, this should also result in donors being less likely to part with their good (an outcome directly in opposition to the current work's hypotheses).

While the endowment effect has been demonstrated across different items, there are also contexts that influence the strength of the endowment effect. Perhaps not surprisingly, increased length of ownership increases sellers' WTA prices (Strahilevitz & Loewenstein, 1998). Perhaps more surprising is that WTA prices can be influenced by mere *feelings* of ownership (i.e. psychological, pseudo, or perceived ownership) independent of objective ownership. Researchers have been able to get individuals to feel possession of items through mere touch and by being the top bid for an online auction prior to its completion (Peck & Shu, 2009; Wolf, Arkes, & Muhanna, working paper respectively) . Importantly, individuals in these studies did not only self-report feelings of ownership, but they also exhibited similar patterns of increased WTA prices upon perceived or pseudo ownership. Unlike other experiences that are difficult to manipulate in hypothetical realms, feelings of possession or endowment are quite robust.

Explanations for Endowment Effects

In the original studies of the endowment effect, researchers sought to explain the increased value sellers requested through the lens of prospect theory. According to prospect theory, losses loom larger than gains (Kahneman & Tversky, 1979). The magnitudes of how good gaining money or bad losing money feels are not equal according to Prospect Theory; losses hurt more than gains feel good. Viewing the endowment effect through the lens of prospect theory, Kahneman and colleagues (1990) argued that the loss sellers would experience as a consequence of parting with their good is going to be more severe than the positive feelings the buyer will experience upon gaining the good. Therefore, in financial terms, the seller ought to be compensated more than the buyer would offer to obtain the good.

More recently, researchers have examined additional factors that help explain the

endowment effect (Morewedge, Shu, Gilbert, and Wilson, 2009). A new perspective for why sellers inflate the price of their items focuses on how the items we own suffer from positive illusions (Dommer & Swaminathan, 2013; Gawronski, Bodenhausen, & Becker, 2007) because they are connected to us and are an extension of ourselves (Belk, 1988). The psychological literature on self-enhancement and positive illusions demonstrates time and time again, that we see ourselves in rosier, kinder light than we see others across a multitude of domains (including driving skill and memory retrieval). For example, we tend to see ourselves as “better than average” or in the upper percentiles of more skills than is mathematically possible (Alicke & Govorun, 2005; Brown, 1986).

Given that it is in our nature to see ourselves in a self-serving light, and because our possessions are a part of us, this results in us seeing our possessions in a rosier light as well. We afford our possessions the same benefits we do to ourselves by seeing them as more favorable (Beggan, 1992) and attractive (Beggan & Allison, 1997) compared to equivalent items we do not own. This new perspective of the endowment effect asserts that the reason sellers ask for higher prices for their items is that they have enhanced the value of their things merely by being associated with it— a departure from the former explanation that espoused sellers were seeking higher compensation for the anticipated negative affect experienced as a consequence of losing their good.

In summary, the literature has established the role of ownership in buyer-seller contexts; it inflates seller’s valuation of their goods, making them less likely to part with their owned items. As of yet, research has not focused on how might these same increased valuations lead to different or opposite outcomes within a donations context. This dissertation argues that the overvaluation and positive illusions individuals have for their owned goods (compared to equivalent goods they do not own) actually makes them

more likely to part with them within a charitable giving context, in part because would-be donors anticipate their owned goods will be more helpful and valuable to a would-be receiver (for example a victim of a natural disaster).

Giving Literature

To my knowledge there is no research to date within the literatures of psychology or marketing that studies how feelings of ownership influence giving (via donations or gifts). Rarely do researchers experimentally test for donation type preferences within the same experiments (e.g. owned goods vs. money), and rely more on correlational designs to see how individuals allocate resources of time, money, or health care resources (Houston, 1996; Boulware, Cooper, Sosa, LaVeist, & Powe, 2002). These disciplines' literatures broadly contribute to our understanding of what increases or impedes charitable giving, and what elements are important to givers (outside of feelings of ownership).

The focus of the current work is to study the consequences of psychological ownership in charitable contexts, which should help us understand the large amounts of physical donations that overwhelm charities (as described in the opening anecdote). What drives a donor's preferences for donating an item they own compared to money (particularly if that money would be used by the charity to purchase an equivalent good)? There are several reasons why people might prefer to donate their goods as opposed to the equivalent amount of money.

Perhaps individuals' deep sympathy for the afflicted is a contributing factor for the intense outpouring of donations (physical and/or monetary) following natural disasters. People tend to give when their emotional heartstrings are pulled, before their more rational side can interfere (Lowenstein & Small, 2007; Small, Loewenstein, & Slovic, 2007). This

type of quick decision-making might influence the lack of deliberation involved in donating money versus owned items. The intensity of emotion donors feel is affected by the rich and tangible details associated with the victims (Slovic, 2007; Dickert & Slovic, 2009). In cases of natural disaster, it is possible that the imagery is more intense than annual campaigns for non-descript causes and therefore garners more emotional sympathy and subsequent donations. The research on charitable giving however, demonstrates that the more individuated an appeal is, the more effective it is in garnering donations (Kogut & Ritov, 2005). So, seeing a country the size of Haiti afflicted by natural disaster would perhaps “numb” would-be donors, thus decreasing giving (Slovic, 2007). One way researchers and practitioners alike have managed to garner aid for large groups of people is by increasing the tangibility of aid that would be delivered to those in need (Cryder, Loewenstein, & Scheines, 2013). Cryder and colleagues found that individuals donated more money to campaigns that were worded specifically (e.g. “One example of how Oxfam provides aid is ensuring that villagers in West Africa have access to clean water.”) rather than generally (e.g. “Oxfam provides a broad range of aid to people across the globe.”). From their data, one can extrapolate that would-be donors have a preference for more specific campaigns, with tangible details as to where their money would go. This work could help explain why individuals feel compelled to donate their owned items in lieu of money, perhaps because as a function of owning the item, the donor is better acquainted with its tangible details (compared to an item they do not own). However, in the current studies, we hold the tangibility and vividness of the items that would be donated constant across conditions. The item that can end up in the receivers’ hands is displayed using the same photo and description across conditions; we merely manipulate the strength of ownership either through objective ownership or manipulations of psychological ownership.

Part of the reason why tangible details are preferred (in addition to allowing the donor to more clearly imagine their impact (Cryder, Loewenstein, & Scheines, 2013) might have to do with the mistrust individuals feel towards large charitable organizations especially those marred by high profile controversies (Light, 2008; Perry, 2015). If so, one reason individuals choose to donate their owned items in lieu of money would be to minimize any uncertainty as to where and how their money would be handled. In Experiment 1 we measured trust to see whether this concern was influencing our participants. Experiment 1 did not find significant differences in the trust that the charity would deliver the donation item to the victim in need between conditions (whether it was soup from individuals' homes or money they had donated to purchase the same soup).

A separate compelling reason why might individuals prefer to donate their owned items in lieu of equivalent items they do not own, money, or items they own but feel less ownership over has to do with personalization. Personalization relates to individuation whether through choice or the nature of the item (Moreau, Bonney, & Herd, 2011). The gift-giving literature has established givers value opportunities to personalize or individuate gifts so much so they sometimes do so at the cost of the quality of the gift (Steffel & LeBouf, 2014). Givers value individuation in part because it demonstrates effort and as a consequence of this, givers anticipate receivers will value that the givers took the time or put in "thought" in finding the right gift (Zhang & Epley, 2012). Within a donations context it is possible that would-be donors feel very struck by the plight of individuals in need and want to extend as much care and thought as possible and believe the items they own are more thoughtful or personalized. The thought may be, "well my blanket is one-of-a-kind because it is mine, surely they would appreciate my blanket more than just a generic one provided by the charity". Personalization ranges

on a spectrum, and just as a function of having chosen the item for themselves, donors may believe that more thought, effort, and time went into donating the item they own. In the current work, throughout all experiments, the donation item—whether it be cases of canned soup, blankets, or pens—are equally personalized. We show participants (the would-be donors) the same photographs and use the same descriptions to describe the items. We do not allow any personalization of color or type of donation within a given experiment or condition.

When weighing in on why donors feel compelled to donate their owned items, disaster response expert Rebecca Gustafson says, “Money sometimes doesn't feel personal enough for people. They don't feel enough of their heart and soul is in that donation...” (Kernis, 2016). This insight is related to the burgeoning work on magical thinking and contagion. Contagion refers to the passing of properties or essence to another person or object through mere touch (Argo, Dahl, Morales, 2008). Some studies have looked at negative contagion (Rozin, Nemeroff, Wane, Sherrod, 1989) where people believe traits like hatred or evil can be transmitted from an individual to their possessions (e.g. Hitler’s sweater). More recently, researchers have documented positive contagion, where as a consequence of products being touched by attractive or desirable others, consumers view the item more favorably (Argo et al, 2008). Researchers focusing on donations that seem to be infused with the essence of the donor describe these types of donations as “self-giving” (e.g. blood). When individuals give these types of donations they feel more generous and committed to the charitable cause (Koo & Fishbach, 2016). Within the domain of charitable giving where individuals could conceivably donate their owned items vs. money or items they feel less ownership over, contagious beliefs may allow would-be donors to assume their owned goods are infused with more positive essence or comforting intentions than

items they do not own and are provided by a charity. While probable, Experiment 4 within this dissertation makes a strong case that ownership more so than belief in contagion or “self-giving” increases donations. For example, just before the opportunity to donate, all participants held the donation item (i.e. a pen) in their hand (allowing for equal time of transmission of contagious belief) and yet there were still differences in donation rates exclusively by manipulating feelings of ownership. So, by allowing every would-be donor physical possession of the item prior to donation, we held contagious opportunities constant.

Finally, a separate compelling motivation for why donors might be more likely to donate their owned goods (in lieu of money or items they feel less psychological ownership over) relates to feelings of martyrdom. Olivola & Shafir (2013) found individuals reported donating more money to a cause with a more painful fundraising event (e.g. a 5-mile run) compared to a pleasant control event (e.g. a picnic). The idea behind their “martyrdom effect” is that individuals conflate the hardship of the event with the meaningfulness or virtue associated with the cause. Donating ones owned goods may feel like a harder sacrifice (consistent with past endowment effect work) than giving money or goods owned for less time and therefore this sacrifice might feel especially virtuous to make in the name of charity. We hypothesized this could be playing a part in our own experiments, so within a Experiment 1 we included an item that measured how virtuous participants believed a donation would feel. We did not find a significant difference in perceived virtue between our experimental conditions. We believe one of the main reasons for this null effect is that we held the effort constant across donation opportunities (discussed in greater detail throughout Experiment 1).

Thus, while there are perhaps many converging explanations for why individuals

donate their goods in lieu of money, the current investigation seeks to distill the influence of both objective and psychological ownership. We aim to do so by isolating the concept in our studies from the alternative explanations discussed above.

Based on the literature, individuals should be more reluctant to part with the items over which they feel stronger (versus weaker) ownership. However, we hypothesize a reversal of the outcomes found in typical endowment effect studies – with individuals being *more* likely to part with the items over which they feel stronger ownership in charitable giving contexts. We suggest this occurs because people perceive the objects in their possession as more valuable to both themselves and receivers, leading to an increased willingness to donate. This reversal hypothesis may help explain why so many individuals, when asked for charitable contributions, donate their own possessions instead of money.

Hypotheses

Hypothesis 1a: Willingness to donate is greater for owned items than for monetary donations that would purchase equivalent items.

Hypothesis 1b: Potential donors perceive owned items as more valuable to receivers than equivalent items purchased with monetary donations.

Hypothesis 2: Psychological ownership is stronger and perceived connection is closer for owned items than for equivalent items purchased with monetary donations.

Hypothesis 3: Individuals induced to feel stronger (vs. weaker) feelings of psychological ownership will be more likely to donate.

Research Overview

We conducted four experiments to investigate these hypotheses. Experiments 1 and 2 tested Hypotheses 1a and 1b, examining whether individuals who are able to donate items they own (compared to those who can donate money to a charity that will purchase an equivalent item) will perceive the item they own as more valuable to a

receiver and be more likely to donate. Experiment 3 tested Hypothesis 2, which predicted individuals who are able to donate their own items (compared to those who could donate money to a charity that would purchase an equivalent item) will report greater feelings of psychological ownership and will perceive a closer connection to the item. Lastly, Experiment 4 tested Hypothesis 3 in the laboratory with real donations, where we predicted individuals induced to feel stronger feelings of psychological ownership would actually donate more frequently than individuals induced to feel weaker feelings over the same item.

Experiment 1

In this first investigation, we designed an online scenario to manipulate feelings of ownership to first test whether individuals would report being more likely to donate items they owned than to donate money that would purchase equivalent goods. Half of participants were given the opportunity to donate an item from their home valued at \$30, whereas the other half of participants could donate \$30 to a charity that would purchase an equivalent item. We hypothesized that those who had the option of donating their own item would believe it was more valuable to a receiver and this in turn would increase their likelihood to report willingness to donate.

Method

Participants

Two hundred and eleven Amazon Mechanical Turk workers (101 female, $M_{age}=35$) were paid \$0.50 USD to participate in a 5-7 minute academic survey.

Materials

After consenting, participants read, “Imagine you learned that a nearby town is

suffering from intense floods. There has been a call for donations. All donations are organized by a local charity.” Next, an image of a 12-can case of soup was displayed, and then participants were randomly assigned to read one of two texts introducing the method of donation for providing assistance to the flood victims:

- Your Money for Soup: “How likely would you be to donate \$30 to a local charity that would purchase a 12-can case of your favorite chicken noodle soup (valued at \$30) and send it to a flood victim?”
- Your soup: “In your home you own a 12-can case of your favorite chicken noodle soup. How likely would you be to donate your own case of soup (valued at \$30) to a local charity that would send it to?”

Next, all participants read, “The case of soup would be delivered (to the victim) the next day at no extra cost, but you must drop off your donation in person to the charity's headquarters 10 miles away from your home.” This text was added to reduce the overall likelihood that every individual would agree to donate. By introducing a cost, we attempted to prevent a ceiling effect. Additionally, this text insured that the transaction cost, convenience, and effort of donating was equal across experimental conditions. So, regardless of whether the participant gave money or soup a trip would need to be involved in order to donate. Even so, we did include a measure of effort by asking participants; “To what extent would this donation feel effortful for you?” on a 7-point scale, ranging from 1 (Not at All) to 7 (Extremely). In line with the concern for effort and martyrdom as an alternative explanation to ownership, we included a measure of perceived virtue. We asked all participants; “To what extent would this donation be virtuous?” We did not expect to find differences in effort or virtue between our experimental conditions, but a significant difference would indicate that donors experience donating their owned goods differently from money beyond feelings of ownership.

Participants answered how likely they would be to donate (their own soup versus

\$30 for equivalent soup) on a 9-point scale ranging from (Extremely Unlikely) to (Extremely Likely). Participants indicated, “To what extent would your donation be valuable to the flood victim?” on a 7-point scale, ranging from 1 (Not at All) to 7 (Extremely). As a more subjective test of “value”, we asked participants “To what extent would the flood victim find the soup flavorful and tasty?” on the same 7-point Likert scale that value was assessed on. Importantly, when answering this question participants in one condition would be thinking of their soup from their home whereas the other set of participants would be thinking of the soup provided by the charity. To test the influence of mistrust in charitable organizations to administer aid, we asked participants “To what extent do you trust the local charity to administer your donation to the flood victims?” on a 7-point scale, ranging from 1 (Not at All) to 7 (Extremely).

Results

Perceptions of Soup

An independent t-test confirmed that participants thought their own soup would be more valuable to a flood victim ($M=5.63$, $SD=1.12$) compared to soup purchased by the charity with participants' \$30 donation ($M=5.24$, $SD =1.37$), $t(209)=-2.29$, $p =0.023$. Participants believed the soup from their home would taste marginally better than the soup provided by the charity, $t(209)= -1.84$, $p= 0.06$

Donation Decision

Individuals reported being more likely to donate soup (valued at \$30) from their home ($M=6.49$, $SD=2.21$) than to donate \$30 to a charitable organization that would purchase the same soup ($M=5.61$, $SD=2.25$), $t(218) = -2.90$, $p =0.004$.

Regression analysis was used to test the hypothesis that perceived value to the receiver mediates the effect of manipulated donation source on donation likelihood. First,

results indicated that our manipulated donation type (coded 0 for money for soup and 1 for your soup) was positively associated with perceived value to the receiver, $B=.40$, $SE=0.17$, $t(211)= 2.30$, $p=.02$, and perceived value was positively associated with people's likelihood of donation, $B=0.78$, $SE=0.11$, $t(211)=7.10$, $p<.001$. The indirect effect was estimated using 1000 bootstrap resamples, and confirmed that perceived value to the receiver mediated the relationship between donation source and donation likelihood ($B=0.31$, 95% CI [.033, .59]). Because the direct effect of donation source on donation likelihood remained significant even when controlling for perceived value to the receiver ($B=0.61$, $SE=0.29$, $t(211)=2.08$, $p=.04$) the mediation is partial, suggesting other factors may be contributing to the effect.

Alternative Hypothesis Measures

Individuals who had the opportunity to donate their soup did not trust the charity any more or less ($M=5.63$, $SD= 1.26$) than the individuals who could donate money ($M=5.65$, $SD=1.30$) $t(209)= 0.12$, $p = 0.96$.

Individuals who had the opportunity to donate their soup did not find it any more or less effortful ($M= 3.59$, $SD= 1.77$) than individuals who could donate money ($M= 3.78$, $SD= 1.73$), $t(209) =0.78$, $p=0.437$.

Individuals who could donate their own soup did not report seeing their donation as anymore virtuous ($M= 4.83$, $SD=1.44$) than individuals who could donate cash ($M= 4.92$, $SD= 1.36$), $t(209)=0.45$, $p=0.654$.

Figure 1

Likelihood of donating item based on type of donation (your money for soup vs. your soup). Bars represent standard error.

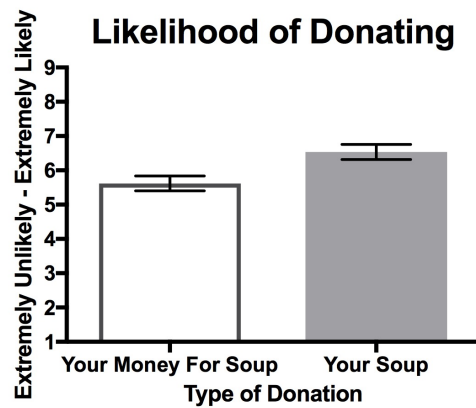


Figure 2

Perceived value to the receiver (victim of flooding) based on type of donation (your money for soup vs. your soup). Bars represent standard error.

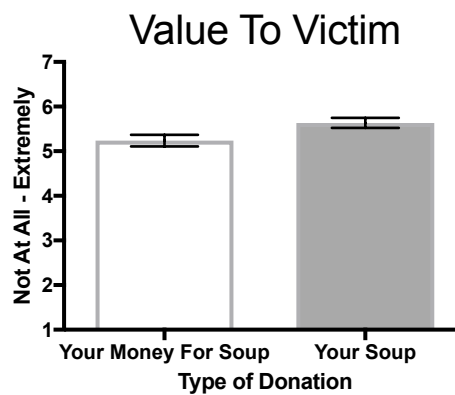
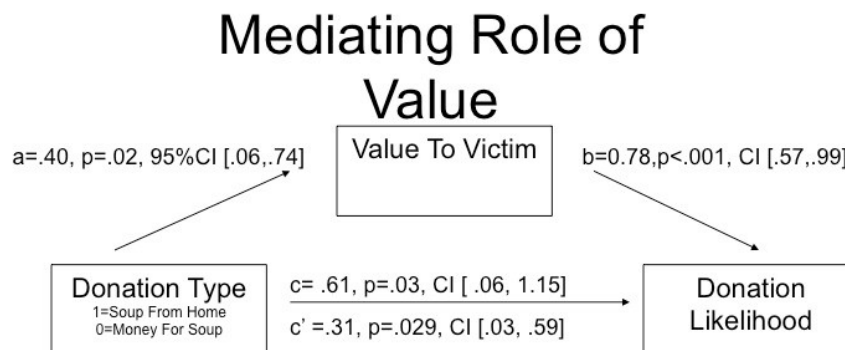


Figure 3

Perceived value to victim of natural disaster mediating the relationship between type of donation (your money for soup vs. your soup) and the likelihood of donating item.



*Indirect effect of Value (1,000 bootstraps) = .31, SE = .14, 95% BC CI [.06,.60]

Discussion

Experiment 1's results provide evidence that people report being more likely to donate items they believed they owned compared to donating money to a charity that would purchase an equivalent item. Participants reported they would be more likely to give up their own items compared to their money, while holding the vividness, price, and tangibility of the item constant between experimental treatments. An alternative explanation could be that participants thought that they could ensure the delivery of their donation by giving soup, whereas money involves trusting the organization to actually administer soup. The non-significant differences on the trust measure suggest this is not the case. Additionally, the non-significant differences between conditions on the items virtue and effort also suggest that the alternative hypothesis of martyrdom does not better explain the pattern of results than ownership. As a consequence of using an internet sample, there was variability in income; however, participant income did not vary significantly by condition and the results of a regression analysis indicate that participant income did not significantly predict the likelihood to donate either soup or money $\beta=0.033, p=0.582$. Therefore, a participant's personal finances did not predict their willingness to give money.

Using soup as the donation item in Experiment 1 was a way to hold objective quality constant. Unopened soup should be the same regardless of whether it was being held in a homeowner's pantry or a pantry within a charitable organizations' headquarters. Experimentally, the soup coming from a charity should not be perceived as any less good than soup coming from one's home. With that being said, participants in Experiment 1 did think the soup from their home would taste marginally better than soup provided by the charity. This measure could have been picking up on the positive illusions individuals had over the item they owned compared to the one they did not. To ensure that perceived

taste or quality was not a significant driver of donation decisions we enlisted a new item for Experiment 2.

Experiment 2 introduces a blanket as the donation item of choice because blankets show objective wear over time. A blanket that has been housed in a donor's home should be more objectively worn and less valuable to a receiver. Therefore, it would be a conservative test of our hypotheses if individuals still believed the blankets from their home would be more valuable to a receiver than money to a charity that would purchase a new, and yet equivalent (based on price, color, and material) blanket.

Experiment 2

Methods

Participants

Two hundred and fifty-two individuals (36.1% Female, $M_{age}=30.69$) throughout the United States were recruited through Amazon Mechanical Turk's website and participated in a 5-7 minute academic survey for \$0.50.

Materials

The procedure was similar to Experiment 1. All participants saw the call for donations following a nearby flooding. Following this, an image of a blue blanket was displayed. Next, participants were randomly assigned to see one of two texts:

- **Your Money For Blanket:** "How likely would you be to donate \$30 to a local charity that would then purchase the blue blanket pictured above for \$30 and send it to a flood victim?"
- **Your Blanket:** "In your home you own the blue blanket pictured above. How likely would you be to donate this blanket (which you bought for \$30) to a local charity that would send it to a flood victim?"

,Similar to Experiment 1, participants indicated their likelihood to donate and answered a series of questions related to the quality of the blanket and its value to a flood victim..

Additionally, participants answered, "To what extent would your donation comfort the

flood victim?" on a 7-point Likert scale from 1 (Not at All) to 7 (Extremely).

Results

An independent t-test confirmed participants reported being more likely to donate a \$30 blanket they owned ($M=6.11$ $SD=1.99$) compared to \$30 to a charity that would purchase an equivalent blanket ($M=4.23$, $SD=2.47$), $t(250)=-6.64$, $p<0.001$. Participants who could donate their own blanket thought it would be more valuable to the receiver ($M=5.06$, $SD=1.28$) than the blanket purchased with their money by the charity ($M=4.49$, $SD=0.16$), $t(235.73)=-3.13$, $p=0.002$. Participants believed their blankets ($M=5.31$, $SD=1.20$) would do a better job at comforting a receiver than the blanket purchased with their money ($M=4.87$, $SD=1.47$) through the charity, $t(250)=2.56$, $p=0.011$. This evidence is consistent with individuals having positive illusions about themselves and, by extension, their possessions. Interestingly, while indicating their own blankets would be more comforting and valuable, participants recognized that their own blankets would be significantly more worn ($M=1.32$, $SD=0.166$) than the blankets purchased by the charity with the participants' money ($M=1.16$, $SD=0.104$), $t(250)=-5.631$, $p<0.001$.

Mediation analyses were conducted following the measures outlined by Preacher and Hayes (2004) to test the hypothesis that value to the receiver mediates the effect of manipulated donation source on donation likelihood. Three regression analyses were conducted to demonstrate the relationship of the mediation model. First, results indicated that our manipulated donation source (charity/money was coded 0 and home/blanket was coded 1) was positively correlated with perceived value to the receiver, $B=0.57$, $SE=0.18$, $t(252)=3.16$, $p=0.002$, and perceived value was positively correlated with people's likelihood of donating, $B=0.69$, $SE=0.087$, $t(252)=7.98$, $p<0.001$. The mediator (perceived value to the victim) was positively associated with the outcome of likelihood to donate

($B=0.399$, $t(252)=2.94$, $p=0.003$) and this indirect effect was estimated using 1000 bootstrap resamples, and confirmed that perceived value to the receiver mediated the relationship between donation source and donation likelihood as the confidence interval did not include zero ($B=0.398$, 95% CI [.167, .712]). Because the direct effect of donation source on donation likelihood remained significant even when controlling for perceived value to the receiver ($B=1.48$, $SE=0.25$, $t(252)=5.79$, $p < 0.001$) the mediation is partial, suggesting other factors contribute to the outcome of donating. These additional factors will be discussed in Experiment 3.

Figure 4

Perceived value to the receiver (victim of flooding) based on type of donation (money for blanket vs. your blanket). Bars represent standard error.

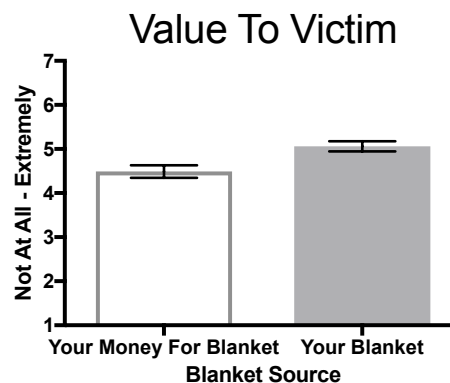


Figure 5

Donation likelihoods by type of donation (money for blanket vs. your blanket). Bars represent standard error.

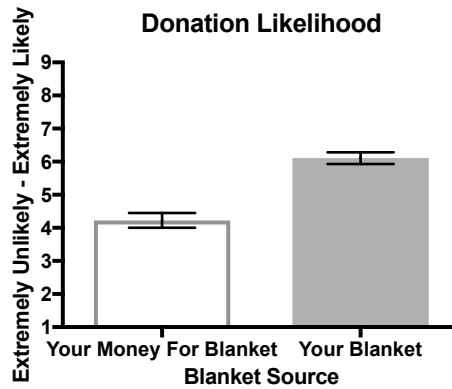
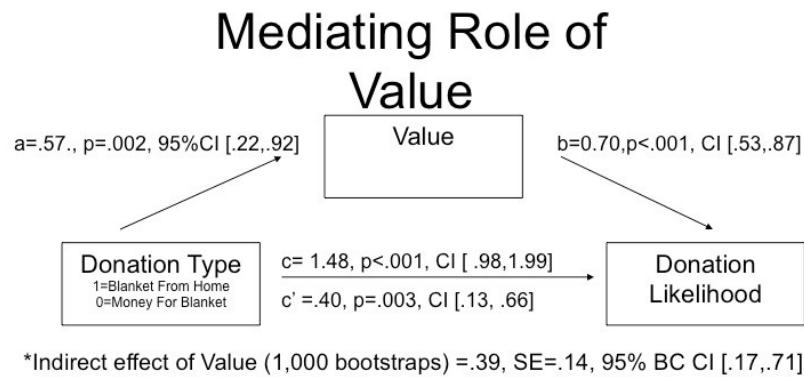


Figure 6

Perceived value to the receiver mediating the relationship between type of donation (blanket or money for blanket) and reported likelihood of donating.



Discussion

Simultaneous to reporting their blanket would be more comforting and valuable to a flood victim, participants in Experiment 2 also indicated their blanket would be more worn compared to a blanket provided by a charity (purchased with the participant’s monetary donation). While participants had subjective and inflated impressions of how helpful their owned items were, they still exhibited some objectivity in recognizing that something from their home was likely to be more worn than a newly purchased blanket. These findings are a bit counterintuitive, and yet consistent with this work’s hypotheses. Donors are willing to have the receiver

incur an objective cost of a more worn blanket in order to deliver something they owned out of a belief that it will be more helpful in comforting to the receiver.

These donation likelihood results highlight a reversal of typical endowment effect outcomes; while participants inflate the value of their items—a finding consistent with past work on the endowment effect—they report being more likely to part with the item—a finding inconsistent with the endowment effect typical outcomes in the literature.

Experiment 3

Building on the results of Experiment 2, we sought to identify why owning an item increases the perceived value of that item to others. Experiments 1 and 2's manipulations were predicated on the implicit assumption that individuals felt more psychological ownership over the item they could imagine donating from their home compared to the item that could be purchased with their monetary donations. Experiment 3 explicitly tests this assumption by taking two measures of psychological ownership (adapted from Peck & Shu, 2009) over the blanket the flood victim would receive. Additionally, Experiment 3 measured how close individuals felt to the donation item in hopes of understanding how feelings of proximity influenced perceptions of value and ownership. To this end, we explored how much overlap donors saw between themselves and the blanket that would be donated by adapting Inclusion of Self measures (Aron et al, 1992, Goldstein & Cialdini, 2007, Goldstein et al, 2014).

Past research has demonstrated that psychological ownership is positively associated with feelings of attachment (Kamleitner & Feuchtl, 2015). Importantly, given that individuals view their owned items as more valuable (Gawronski et al, 2007, Thaler, 1980, Morewedge et al, 2009) then it should follow that the more connected or attached they feel

to the item, the more value they place on it. It follows then that potential donors perceive this same value to others.

Methods

Participants

392 University students ($M_{age}= 21.4$, 78% female) were recruited through the UCLA Anderson behavioral lab website and participated in exchange for \$1.

Materials

Upon consenting, participants were randomly assigned to read one of two descriptions indicating how they might donate to a local charitable organization that is collecting supplies for victims of recent flooding disasters.

- Donating your money for blanket: “Imagine you are considering donating \$30 to a trustworthy local charity, which will purchase the blue blanket pictured above for \$30 and deliver it to a flood victim.”
- Donating your blanket: “Imagine in your home you own the blue blanket pictured above which you purchased for \$30. You are considering donating it to a trustworthy local charity that will deliver it to a flood victim.”

Participants proceeded to indicate how much they agreed with the following statements adapted from Peck & Shu (2009) on a scale from 1 (strong disagree) to 7 (strongly agree). “I feel a very high degree of personal ownership of the blanket” and “I feel like I own the blanket” ($\alpha=0.87$). Afterwards, participants responded to six closeness measures ($\alpha=.942$). Five measures were adapted from Goldstein et al. (2014) to reflect how close an individual feels to a target (e.g. “To what extent do you feel a bond with the blanket”). The sixth measure was adapted from IOS (Aron et al, 1992) where the “self” was in one circle and “blanket” was in the other. Scale items ranged from 1-7, where 1 would illustrate the least overlap and 7 would indicate the most overlap. Next came the measure of value to the receiver, measured similarly to Experiments 1 and 2, “To what extent would the blanket be valuable to the flood victim?” Lastly, participants were asked how likely they would be to donate the blanket (vs. money). Similar to previous studies, we included

the following text, “The blanket would be delivered the next day to the flood victim at no additional cost to you, but you must drop off your donation in person to the local charity's headquarters which is a 30 minute drive from your home.”

Results

The extent to which individuals felt psychological ownership over the blanket that would be donated differed significantly by condition, $t(390) = -15.51, p < 0.001$.

Participants who could donate a blanket from their home felt more psychological ownership ($M=4.5, SD=1.53$) than participants who could donate a blanket through the charity ($M=2.32, SD=1.23$). Participants who could donate their own blanket felt closer to the blanket ($M=3.10, SD=1.34$) than participants who could donate their money that would go to a charity that would purchase an equivalent blanket ($M=2.28, SD=1.13$), $t(390) = -6.47, p < .001$. Participants saw their own blanket as being more valuable to the receiver ($M=6.02, SD=1.05$) than an equivalent blanket purchased by a charity with the participant's money ($M=5.34, SD=1.25$), $t(390) = -5.76, p < .001$ (a replication of Experiment 2). Lastly, when it came to intentions to donate, individuals who could donate their own blanket reported being more likely to part with it ($M=6.28, SD=1.76$) than individuals who were donating money ($M=4.70, SD=2.00$), $t(390) = -8.29, p < .001$.

To test the causal chain of measures that lead to a participant's willingness to donate to a charitable cause we conducted a structural equation model. First, the relationship between what the participant could donate (manipulated to be 1 for a blanket from their home and 0 for money towards an equivalent blanket) and the amount of psychological ownership individuals felt over the blanket that would be donated was positively related, $B=2.17, SE=0.140, t(392)=15.56, p < 0.001$. The strength of psychological ownership individuals felt towards the blanket was positively associated with how proximate they felt towards the blanket, $B=0.46, SE=0.03, t(392) = 15.76, p$

<0.001. How proximal individuals felt to the blanket positively influenced how valuable individuals believed the blanket would be to the receiver, $B=0.151$, $SE=0.05$, $t(392)=3.28$, $p <0.001$. And in turn, how valuable individuals viewed the blanket to be to a victim was positively associated with the likelihood of donating to the charity, $B=0.46$, $SE=0.08$, $t(392)=5.76$, $p <0.001$. Lastly, the direct effect of condition (manipulated to be 1 owned blanket and 0 for money towards an equivalent blanket) was positively associated with donation likelihoods, $B=0.127$, $SE=0.190$, $t(392)=6.70$, $p <0.001$.

Table 1

Psychological ownership composite, closeness composite, value to the receiver, and donation intentions across the two experimental conditions. Standard deviations are in parentheses. Means with superscripts indicate statistically different between conditions $p < .001$.

Experimental Condition	Psych Own	Close Measures	Value to Receiver	Donation Intention
Money	2.32* (1.23)	2.28* (1.13)	5.34* (1.25)	4.70* (2.00)
Blanket	4.5* (1.53)	3.10* (1.34)	6.02* (1.05)	6.28* (1.76)

A mediation model tested the indirect effect of the causal chain (feelings of psychological ownership, feelings of closeness, and value) on the relationship between condition and donation likelihood. The indirect effect significantly mediated the relationship, $B=0.069$, $SE=0.025$, $t(392)=2.76$, $p=0.006$, and after 1,000 bootstrapped resamples the confidence interval did not include zero [.025, .124].

Figure 7

Causal chain of donation type's (money vs. blanket) effect on donation likelihoods through influences of psychological ownership, feelings of proximity to the blanket, and predicted value to the receiver. Superscript * $p < 0.008$, ** $p < 0.001$

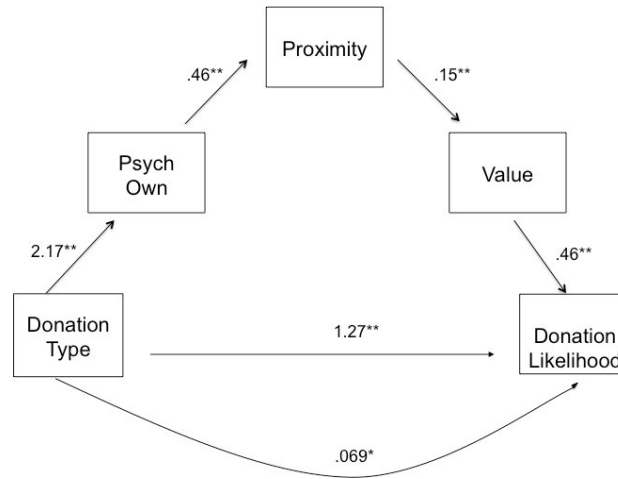


Table 2

Path models for the causal chain that predicts condition on likelihood to donate. Superscript (* $p < 0.008$, ** $p < 0.001$).

Path	Coefficient	Standard error	T value
Cond -> Psych Own	2.17**	.140	15.56
Psych Own -> Proximity	.461**	.029	15.76
Proximity -> Value	.151**	.046	3.28
Value -> Donate	.456**	.079	5.76
Cond -> Donate	1.27**	.190	6.70
Cond -> Donate (Passing through Psych Own, Proximity, and Value)	.069*	.025	2.76

Experiment 3 demonstrates that one of the reasons individuals report a willingness to donate their own items more than their money that would be used to purchase an equivalent item stems from how differently they view the items they own versus ones they do not. A blanket that was donated from a participant's endowment still feels more psychologically like one's property compared to an equivalent blanket the donor did not previously own. These feelings of psychological ownership in turn affect how close

individuals feel to the item and this proximity allows individuals to believe their item will be more valuable to a receiver than an equivalent item they feel less close to. Having traced and measured how ownership influences variables such as psychological ownership and proximity, in Experiment 4 we sought to manipulate these variables and track real donation decisions.

Experiment 1-3's manipulations compared an owned item to money for an equivalent item while controlling for vividness, tangibility, price, and language. We took these efforts further in Experiment 4 by using a new manipulation in a lab experiment with a real behavioral outcome. In this procedure, participants owned and had the potential to donate the same item regardless of condition. However, we manipulated the strength of psychological ownership individuals felt over the item (between conditions) in order to test whether those with strongest feelings of ownership donated the least (as predicted by the previous endowment effect literature) or most (in accordance with our hypothesis).

Experiment 4

In Experiment 4, we sought to manipulate feelings of psychological ownership using established and novel methods. We sought to increase feelings of ownership in the *strong* feelings of psychological ownership condition by allowing participants to believe the item was theirs for a longer period of time compared to participants in the *weak* psychological ownership condition (consistent with manipulations used by Strahilevitz & Loewenstein, 1998). Additionally, we developed new methods to increase feelings of possession. Individuals in the strong feelings of psychological ownership condition were instructed to write their name or "property of" on materials throughout the session, really

amplifying feelings of possession. In sum, participants in the strong feelings of psychological ownership condition were induced to feel the most ownership over their item. This manipulation was critical in testing hypothesis 3, wherein we predicted these randomly assigned individuals (contrary to past endowment and ownership research) would be more likely to part with their item (compared to those who felt weaker feelings of psychological ownership).

Methods

Participants

One hundred and forty six individuals were recruited from a West Coast University's participant pool to participate in a 15-minute laboratory experiment on "product evaluations" in return for \$3. Participants made appointment times to arrive at the laboratory space and were ushered into a single room where they consented and interacted with the research assistant.

Materials

There were three stages of the experiment.

Stage 1: Product Evaluation

All participants were brought into the lab space by a research assistant and were instructed to read the materials on the computer. Developing participant reliance on the computer was a deliberate design choice as it minimized time interacting with the research assistant, which would grow in importance as the study progressed. The messaging service Skype was opened on the computer and participants were instructed to message the researcher if they had any issues or when the computer specifically indicated they do so. The computer instructions indicated participants would evaluate a University branded ballpoint pen. Participants followed the computer's instructions to test the pen in a writing task (individuals wrote "The quick brown fox jumps over the lazy dog" on a piece of paper) and then based on this experience, evaluated the pen via a short survey. Participants

indicated on a 7- point scale (1:Not at all- 7:Very Much), “How much do you like this pen?” “Is it comfortable to grip?” And importantly, “How much would you be willing to use this pen in the future?”. Stage 1 of the experiment allowed participants experience with the pen and to express their interest in the product (a sentiment in line with the advertisement of the experiment). We believe this last measure was critical in order to make the case that the future donation of this pen would be costly to participants. Had participants on average indicated that they were “not at all” interested in using the pen in the future then the choice to donate would reflect disinterest in the pen. However, this was not the case, on average, participants reported future interest in the pen well above the midpoint of the scale (or the point of indifference), $M=5.07$, $SD=1.46$. There were not significant differences in future interest of the pen by condition ($p= 0.729$).

After participants completed the pen evaluation survey, the computer instructed participants to message the research assistant to return. Upon entering the lab room, the assistant placed the pen in a plastic sandwich container whose lid required two snapping mechanisms. The container served an important role throughout the experiment. Based on previous research related to haptic exposure and perceived ownership (Peck & Shu, 2009) we wanted to ensure that participants in both conditions had the exact amount of exposure with the pen. To ensure the participant did not touch the pen without the assistant’s knowledge and time spent touching the pen was equal across conditions; the pen was placed in the plastic container when not in direct use.

Stage 2: Ownership Manipulations

Next, participants were guided through detailed preparations for a memory task ostensibly designed to test the features they could recall about the pen. The preparatory steps leading to the memory test were in fact how experimental manipulations were

introduced.

- *Strong Feelings of Psychological Ownership*: Participants were told early on within the session (immediately after the writing sample and pen assessment survey) that they could take the pen home after the session. The computer screen informed participants "...the pen (in the box) is yours to keep, you may take it home at the end of today's session." Next, participants wrote their name followed by an apostrophe "s" on a sticky note and proceeded to place the note on the pen (e.g. Alex's) before dropping it in a brown paper bag. Participants wrote "Property of [name]" on the brown paper bag (ostensibly to prevent glances at the pen during the memory task).
- *Weak Feelings of Psychological Ownership*: Participants were told later in the session that they could take the pen home with them (specifically after the memory task). In preparation for the memory task, they did not append a sticky note with their name to the pen. Instead of indicating that the pen was their property, they were instructed to write "Property of the Anderson School" on the brown paper bag before placing the pen in the bag.

Participants proceeded to answer questions based on what they could recall about the pen (e.g. "What color ink did the pen have? Did it have a pen cap? What words appeared on the pen's exterior?"). Following completion of the memory recall survey, participants messaged the research assistant to enter the room. After removing any sticky notes and the brown bag from the table, the RA placed the pen back in the plastic container and read to participants, "This is the last time I'll be coming into the room, however you are not finished. Please continue to read the instructions on the computer. The computer will instruct you when you may leave. You do not have to wait for me. Do you have any questions before I leave?" We included this script for two reasons. First, we wanted participants to not reach out to the RA after learning about the donation opportunity so that any compliance pressure that an RA might have on the participant to behave pro-socially was eliminated, and secondly so that participants could assume that their donation behavior would be anonymous.

Stage 3: Donation opportunity

At this point, the computer reminded participants in the *strong* feelings of

psychological ownership condition, “As previously mentioned, the pen is yours to keep; you may take it home at the end of today's session.” Participants in the *weaker feelings* of psychological ownership condition were told, “The pen in the clear box is yours to keep; you may take it home at the end of today's session.” As previously mentioned, the pen was kept in a plastic container following Stage 2 to ensure that participants did not engage with it differentially by condition when the research assistant was not in the experiment room. In addition, having the pen in the plastic container also allowed an important coding distinction in regards to the donation opportunity in Stage 3.

In the final stage, participants were told about two events happening in the behavioral lab.

1. Book Study: participate for a chance to win a new fiction book.
2. The Behavioral Lab is participating in a donation drive for the Right-to-Write campaign—an organization that sends school supplies with volunteers to children in Africa.

The computer then asked participants how interested they would be in each of the events. For the innocuous “book study” participants responded yes or no. The second event was actually how we introduced the donation opportunity for the pen. Participants read, “If you are interested in donating today to the Right-to-Write Campaign, at the end of today's session please take the pen with you out of the room, walk out of the behavioral lab, walk down the hall, and drop the pen off in the light-blue donation bin labeled "Product Evaluation Study". Donating is completely voluntary.” The next amount of text asked participants if they understood these steps by asking, “Do you understand how you would donate the pen if you were interested in donating it voluntarily?” followed by “Yes” and “No” indicator buttons. If participants indicated “no” then the instructions would reappear, if participants indicated “yes” then the survey would advance to the next screen.

Here again it is important to detail why the pen was kept in the plastic container at

different points throughout the experiment. Ultimately, regardless of whether participants kept the pen for themselves or donated it, they would have to remove the pen from the plastic container for three reasons. First, it allowed us to not count passive donations in cases where participants failed to understand instructions or simply did the easier thing by leaving the pen. Additionally, the two snapping mechanisms on the plastic container were audible when opened and closed, and since we had made efforts to ensure the research assistant was not in the room at the time of donation, we did not want participants thinking that anyone would be able to audibly infer whether they donated. Lastly, we wanted to ensure that regardless of condition, all participants made their donation decisions with the pen in their hand. This allowed us to be certain that, at the time of donation each participant (in either condition) knew the pen was theirs to keep and they could do with it whatever they wished now that it was in physical possession.

Tracking Donations

Prior to each experimental session, research assistants surreptitiously wrote the participant number and condition on a small piece of paper and then hid it within the pen's ink chamber. At the end of the day, RAs would empty the donation bin (located roughly 90 feet away from the lab space) and take note of the condition and participant ID of the pens inside the bin. This allowed us to track donation rates by condition.

Results

Manipulation Check

A pilot test with a separate sample (N=18) with identical experimental conditions used granola bars instead of pens confirmed through a 7-point Likert scale (1: Not at all- 7: Very Much "To what extent do you feel like the bar is yours?") prior to the donation opportunity that individuals in the *stronger feelings* of psychological ownership condition indeed felt like their bar was more theirs ($M=5.56$, $SD=1.13$) compared to

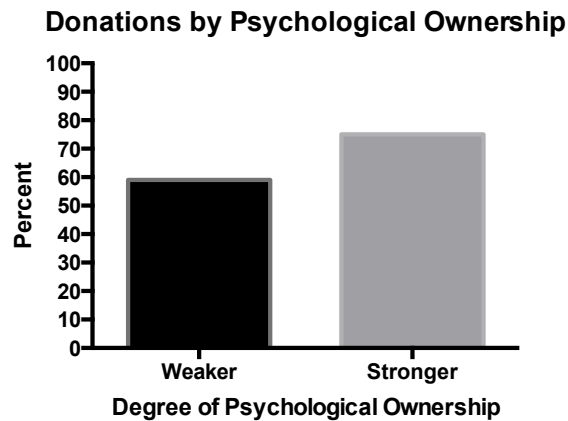
individuals in the *weaker feelings* of psychological ownership condition ($M= 3.00$, $SD=2.0$), $t(10.7) = -3.19$, $p=0.009$.

Actual Donations

Within the current experiment, 67% of all participants donated their pen at the end of their session. Of those who donated, 59.5% were from the weak feelings of psychological ownership condition, whereas 75.0% were from the *strong* feelings of psychological ownership group, ($\chi^2(146) = 3.99$, $p = 0.046$). Consistent with Hypothesis 3, people who were induced to feel more ownership over their item (compared to individuals induced to feel less ownership), donated the item at a higher frequency.

Figure 7

Donations of pen to Right-to-Write campaign by induced feelings of ownership (stronger vs. weaker).



Discussion

Experiment 3 directly manipulated feelings of psychological ownership and traced donation rates by strong and weak treatments. Those randomly assigned to the strong psychological ownership condition donated their item more frequently than those assigned to the weak condition. In maintaining the façade that participants were engaged in a product evaluation survey, we did not include process or mechanism measures related to ownership or value and therefore have a limited understanding of participant's motivations.

General Discussion

Taken together, the four experiments demonstrate a reversal in the likelihood of parting findings associated with the endowment effect and ownership studies. Previous work done in buyer and seller markets found individuals higher in ownership were less likely to part with their items. We are the first to find that within a charitable giving context, individuals are more likely to part with (i.e. donate) items they feel stronger ownership over (compared to those who feel weaker ownership identical products). Based on Experiments 1-3, this increase in donations seems to be driven by individuals' predictions of how valuable the item will be to the receiver.

Following relief campaigns people send too much of the wrong thing. Even in more recent hurricane relief efforts in Louisiana, organizations have had to explicitly ask individuals to not donate clothes or blankets but to instead send money for food, water, and shelter projects (Brasted, 2016). Previous researchers have not explored the role of ownership as the explanation for this behavior. We attempted to bridge this gap in understanding while holding constant variables that past researchers have identified as relevant.

The results of experiments 1 and 2 demonstrated the power of ownership on people's beliefs that their items will be more valuable to the receiver of a charitable donation than an equivalent item not previously owned by the donor. Experiment 3 investigated how owning an item influences feelings of psychological ownership and closeness to the item increases individual's predicted value to the receiver. The results of experiment 4 further supported this theory when individuals induced to feel higher levels of psychological ownership donated their good more frequently than individuals induced to feel lower levels of psychological ownership, all while holding objective ownership equal at

the time of donation.

Limitations

While great care went into the deliberate control of extraneous variables, there remain limitations with the set of experiments conducted. Firstly, aside from the laboratory study, the three vignettes limit our understanding of how individuals would truly behave when given the opportunity to part with their goods. However, researchers have conducted endowment effect tests with hypothetical endowments (Carlsson, He, & Martinsson, 2010) and importantly been able to manipulate feelings of ownership online (Ariely & Simonson, 2003; Carmon, Wertenbroch, & Zeelenberg 2003). Additionally, we did not encounter ceiling effects in donation intentions when measured with the scenario studies. This suggests that the detail we added in our scenario studies relating to the necessity to take the donation whether monetary or physical down to the donation site did impact participants' willingness to donate. The effort we described would have to be exerted regardless of the type of donation made, and therefore created a cost for simply saying "very likely".

While three of the experiments provided a scenario of relief following a natural disaster, the relief effort within the laboratory study was through an organization that donates school supplies to children in need. These two avenues of natural disaster relief and general assistance combine to tell a more generalized story of charitable giving that is not limited to specific disaster relief domains. Even within the vignette studies two types of items (i.e. soup and blanket) were included, suggesting that the generalizability of the result is robust across donation items. That is not to say that there may be other items (e.g. water or medicine) that may exhibit different patterns of results.

One unanswered question relates to how the following studies generalize to giving more broadly as opposed to specifically charitable giving. While we would expect

the transfer of previously owned items is more common in charitable contexts as opposed to celebratory exchanges, there may be a central phenomenon of exchangers (be they donors or givers) overvaluing their owned goods. Following these valuations, exchangers may anticipate their owned goods will be more valuable to others and this will influence their likelihood to part with said items. Perhaps given the rich set of cultural norms surrounding gift-giving, re-gifting previously owned items might constitute a taboo gift (Adams, Flynn, Norton, 2012). However, having owned an item may license individuals to believe it took more time and consideration (or sacrifice) to part with it, and might contribute to the same egocentric biases documented by Epley and Zhang (2012).

Future Directions

Future work could explore the boundaries of this effect. For example, individuals who feel very strong psychological ownership over items (e.g. sentimental ones) may be so attached to their items that they would not consider any opportunity to part with them, regardless if for a charitable cause. Additionally, for especially idiosyncratic (e.g. monogrammed) items, owners may not anticipate the value of their item to transfer as easily to a new receiver (especially if they do not share the same initials). However, some research has shown that the more identity linkage that an individual feels to a good, the more they want to carry on the life of that item (Trudel, Argo, & Meng, 2016). So, there may be an increased desire that the especially idiosyncratic and sentimental goods go to someone new who can appreciate them. This type of behavior may be more common in gift-giving (on account of shared ancestry) and less so with donations (which typically occurs between strangers), but it is an empirical question.

Intervention

This dissertation began by documenting one serious issue charitable organizations face following natural disasters, the outpouring of overwhelming amounts of physical donations. One way to induce more monetary donations is to guide individuals in the process of rationalizing or objectively evaluating the value of their goods. Potential donors might need to be convinced their things just are not that valuable to someone else. This might be executed through a perspective taking exercise where would-be donors are asked to imagine if they were in the disaster situation what would be the first thing they would want. I predict they would be unlikely to say, “Someone’s used blanket, please”.

Based on past research, where endowment effects do not materialize for money (in part because it is seen as a transactional good (Kahneman, Knetsch, Thaler, 1990), I would not advise that petitioners try and create more psychological ownership over money. Rather, I believe that allowing donors more choice and in particular highlighting how their funds would be used on items very similar to ones they already own would encourage monetary donations. For example, if an organization could ask what donors would want to give from their homes, then align that item with existing donation efforts, I would predict monetary donation rates to increase. The “Occupy Sandy” group carried out a version of this idea during Hurricane Sandy relief. Organizers created a “wedding registry” online in order to communicate to donors what was needed (Kernis, 2016).

A separate but related intervention service could function alongside online shopping carts and past purchase history. An algorithm could highlight products that are in the realm of disaster relief (e.g. you purchased a flashlight from Amazon) and suggest that consumers send the equivalent dollar amount of that purchase to an

organization that will administer similar products. Organizations would not have to It guarantee that the specific product matching was actually implemented, but it could close the gap between donor goodwill and efficiencies within a charitable organization, whose goal is to do the most good with the little they have. This strategy specifically leverages ownership (by highlighting past purchases) to increase monetary donations.

Implications

Beyond the theoretical contributions of this work that explores the moderating role of context for the endowment effect (within the realm of for-profit vs. not-for-profit realms), there are financial implications for the United States tax code system.

Filing tax exemptions for past charitable contributions is very objective for monetary donations; there are paper trails via bank statements or carbon copied signed checks and clear rules for how to file. However, for physical donations worth under \$500, each individual is free to self-appraise the value of their donation (Phillips-Erb, 2015). This subjectivity is supposed to be informed by market pricing, but leaves the taxpayer to anticipate the value of their goods (both to themselves and other potential receivers).

Based on this dissertation's research, this process should be fraught with egocentric inflation. Donors are at a disadvantage of being objective when it comes to appraising the value of their goods. In particular, they value their owned goods over money that would secure equivalent goods. We would expect donors to inflate the value of their goods to others and report higher values on their exemptions. Given that in the year 2014, American charitable giving made up 2% of the country's GDP (Phillips-Erb, 2015), the lost tax revenue from individual discretion in these valuations could be substantial.

Conclusion

Once we own something our ability to objectively evaluate that good is compromised. In part because we see our items as extensions of ourselves we afford our goods positive illusions and overinflate their worth to others (Belk, 1988; Gawronski, Bodenhausen, & Becker, 2007). Historically this ownership has manifested itself as a stubbornness or reluctance to part with our goods in a for-profit market. The current work investigates the influence of ownership and shows how the consequences flip within a charitable market. That is, individuals are more likely to report and actually donate items they feel stronger (versus weaker) feelings of ownership over. These findings help explain why individuals see their things as more helpful or valuable to a receiver and in turn take the extra effort to ship physical belongings across states and countries in the pursuit of disaster relief. In digesting the current research, disaster relief organizations can better understand donors and leverage their good intentions but misplaced goodwill.

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