How Construals of Money versus Time Impact Consumer Charitable Giving

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While past research has suggested that consumers have fundamentally different responses to thinking about money versus time, the current work clarifies an important nuance in terms of how consumers construe these two resources. We demonstrate that, in the domain of charitable giving, money is construed relatively more concretely, whereas time is construed relatively more abstractly. This difference in the construal of these two resources has implications for how appeals for charitable contributions or money versus time should be framed. When the construal level at which the consumer considers the cause is aligned (misaligned) with the construal level of the resource being requested, contribution intentions and behaviors increase (decrease). In addition, the moderating role of resource abundance is examined. In particular, when money is considered abundant (vs. nonabundant), consumers no longer exhibit more concrete thoughts in response to money compared to time. Finally, when the donation request makes consumers think of money in a more abundant manner, monetary donations can be successfully motivated with a more abstract call for charitable support. The theoretical and practical implications for marketers and charitable organizations are discussed.

Keywords: prosocial behavior, charity, donations, volunteering, abundance, construal

"Remember that time is money."

—Benjamin Franklin

In this famous quote, Benjamin Franklin relates time to money as a scarce resource. Indeed, money and time are both lamentable constraints in life, as well as our principal means of attaining and experiencing what life has to offer. Money and time are arguably the two resources that we humans most frequently make decisions about throughout our lives. We spend them, save them, strive to be more efficient with them, worry over them, covet them, and sometimes we even give them away. It is the case of giving these resources away that the current research focuses on, examining charitable giving of both money and time. The current work makes the novel prediction that money is generally construed in relatively more concrete terms than time and time is generally construed in relatively more abstract terms than money. We further propose that this has important implications for charitable giving.

A large body of past research supports the notion that considering money and time may lead to psychologically distinct consequences (e.g., Leclerc, Schmitt, and Dube 1995; Mogilner and Aaker 2009; Okada 2005; Okada and Hoch 2004; Reed, Aquino, and Levy 2007; Zauberman and Lynch 2005). The current research builds on this work to provide a theoretical framework that highlights an important way in which money and time are psychologically distinct, and it predicts when appeals for money and time will be relatively more effective. We predict and find that in the

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domain of charitable giving, money is construed more concretely, whereas time is construed more abstractly. Moreover, we demonstrate the importance of aligning the level of abstraction at which the charitable cause is considered with the construal level activated by each resource (time and money). Finally, we predict and find that when the construal level at which the consumer considers the cause is aligned (misaligned) with the construal level of the resource being requested, contribution intentions and behaviors increase (decrease). Taken together, our theoretical framework helps to both integrate past findings, as well as make novel, testable predictions.

INTRODUCTION

Consumer Construals of Time and Money

According to construal level theory (Trope and Liberman 2003, 2010), low-level or concrete construals are relatively detailed, contextualized representations that include subordinate and incidental features of objects and events. In contrast, high-level or abstract construals are decontextualized representations that extract the gist of the concept from the available information. For example, any action (e.g., giving to charity) can be construed in relatively more concrete terms (e.g., donating ten dollars, serving food for an hour at a soup kitchen) or more abstract terms (e.g., contributing to something meaningful, making a difference; Vallacher and Wegner 1987). As an event or object becomes more psychologically proximal to (distal from) the self, it becomes construed in more concrete (abstract) terms (Liberman, Trope, and Stephan 2007).

Drawing on construal level theory, we propose that, all else equal, money is construed in more concrete terms than money. The reasons for this distinction are most certainly multiply determined. We propose that one key reason for construal differences between these two resources is that money is seen as more physically and conceptually finite and tangible than time. While money is something that can be touched, counted, and held in one's hand, time, in comparison, is more intangible and ephemeral. One cannot count time by holding it in their hands or organize it by placing bills in a billfold. As Franklin's quote also suggests, money is the "common currency" to which goods, services, and experiences must be broken down in order to evaluate them (indeed, people are paid money for their time), and so money retains more contextual, concrete features. Time, in contrast, is by its very nature more experiential, ambiguous, and lacking in contextual features.

Although to the best of our knowledge the specific prediction that money is construed as relatively more concrete (and less abstract) than money has not been empirically tested, past work does provide support for the proposition that time may be construed as relatively more abstract (and less concrete) than money. First, time is often linked with what could be viewed as more abstract constructs, while money is often linked to more concrete constructs. For example, time is related to abstract concepts such as happiness and awe (Aaker, Rudd, and Mogilner 2011; Rudd, Vohs, and Aaker 2012), is more affectively than analytically driven (Lee et al. 2015), and brings to mind our connection with others (Mogilner 2010). Money, in contrast, is related to more psychologically proximal outcomes such as a focus on the individual self (Vohs, Mead, and Goode 2006). Second, research shows that time and money tend to be mentally accounted for in distinct ways. For example, individuals do not account for time as effectively as they account for money (Soman 2001), are more likely to exhibit the planning fallacy with respect to time as opposed to money (Spiller and Lynch 2010), feel less accountable for how they spend their time (Leclerc et al. 1995), and more steeply discount the amount of time they will have in the future (Zauberman and Lynch 2005). While budgeting for money is an ability that remains relatively consistent even as temporal distance in the future increases, time is increasingly difficult to account for under the same conditions (Lynch et al. 2010), suggesting that time's lack of contextual features makes it harder to keep track of as psychological distance increases. Finally, losing time is more painful than losing money (Leclerc et al. 1995), perhaps because once it is lost it cannot be regained (i.e., it is less fungible; Mogilner and Aaker 2009; Zauberman and Lynch 2005).

Taken together, this body of past work, as well as the previously mentioned key psychological differences between time and money, lead us to propose the novel hypothesis that a conceptual distinction unifying past findings regarding consumer responses to money and time is that the former is construed relatively more concretely, whereas the latter is construed more abstractly. As a consequence of these differences, we propose that thinking about allocating money (as opposed to time) will activate more concrete (vs. abstract) cognitions. Therefore, this is our first hypothesis:

> **H1:** Thinking about the concept of money (relative to time) will activate a more concrete (vs. abstract) mindset among consumers.

Alignment of Construal Level with Resource Type

Given that our conceptualization suggests that money is construed as relatively more concrete (and less abstract) than time, we propose that one way of highlighting this proposed mechanism is via moderation. In particular, our observed effects should be moderated by the extent to which a request for charitable giving is positioned in more concrete versus abstract terms. In other words, marketing communications that effectively leverage alignment between positioning of the cause (i.e., concrete vs. abstract) and the construal activated by a particular resource (i.e., money vs. time) might be

especially persuasive. Indeed, past research demonstrates that matching the consumer construal with a message at a similar level of abstraction leads to positive consumer responses in a variety of domains, including recycling intentions and behaviors (White, MacDonnell, and Dahl 2011) and charitable giving (Ein-Gar and Levontin 2013; Fujita et al. 2008). In one example, Fujita and colleagues (2008) found that an appeal to help an organization with a specific identified target (a specific orca named Simoon) was more effective when the donation was temporally proximal (i.e., closer in time), whereas an appeal to help an organization with a more general target (i.e., orcas in general) was more effective when the donation was temporally distant (i.e., further away in time). Temporal distance is one domain that has been shown to relate to construal level, wherein temporally close actions, events, and objects are construed or understood in more concrete terms, and temporally distal ones are construed in more abstract terms (Liberman et al. 2007; Trope and Liberman 2003). Thus the findings of Fujita et al. (2008) provide evidence that alignment of a construal domain with a concretely (vs. abstractly) framed message was particularly effective at garnering support for a concrete resource (i.e., money). While Fujita et al. (2008) and Ein-Gar and Levontin (2013) manipulate construal level by making the victim appear more specific and identifiable and then appealing to the specificity of the target, we look at the novel possibility that the requested resource itself (i.e., time vs. money) may lead to concrete or abstract mindsets. This creates the potential for aligning the resource with the construal level of the appeal, which can lead to positive intentions and behaviors.

Drawing on our conceptualization suggesting that money is relatively more concrete than time and on past work showing that alignment in terms of construal level between the specificity of the target and the appeal leads to positive intentions, we propose that charitable appeals that align with the construal level activated by the resource itself (money or time) will be particularly effective. Specifically, we suggest that if money is construed more concretely and time is construed more abstractly, the effectiveness of an appeal for charitable giving for time as opposed to money will be moderated by the degree of abstractness conveyed in the marketing communication. In particular, we propose that a more concrete framing of the charitable cause will be more effective for a solicitation of money as opposed to time, whereas a more abstract frame will be particularly effective when seeking contributions of time as opposed to money. More formally, we predict:

H2a: When a concrete consumer mindset is activated, a request for money (vs. time) will yield more generous charitable-giving intentions and behaviors.

H2b: When an abstract consumer mindset is activated, a request for time (vs. money) will yield more generous charitable-giving intentions and behaviors.

It is noteworthy that this prediction builds on and extends past research and practitioner intuition suggesting that charitable marketers should make concrete appeals to potential donors. Indeed, marketing calls for donor support commonly focus on a *specific donation target* in ways that highlight a specific person, animal, or landscape in need, or describe a specific task to be carried out. The intuition of charitable marketers is often that making a specific and concrete donation appeal will best garner donor support. Prior research supports an "identifiable victim effect," wherein the portrayal of a specific, identifiable victim (as opposed to a group of individuals) has been shown to increase donor intentions and behaviors (e.g., Kogut and Ritov 2005a, 2005b; Loewenstein and Small 2007; Small, Loewenstein, and Slovic 2007). Marketing wisdom, then, typically points to the notion that more concrete appeals (as opposed to abstract appeals) will be most efficacious in garnering donor support. Our work, however, reveals an important nuance—focusing on the concrete and specific cause may not always garner the most positive consumer response, and that the type of resource requested may be an important moderator of responses to concrete versus abstract appeals for charitable support.

In addition, the ability to increase donations without highlighting specific victims is also of significant importance to charitable organizations, such as those serving vulnerable populations (e.g., children or victims of violence), for whom characteristics of their clients may themselves diminish donor willingness to contribute (e.g., due to perceived culpability for their need; Irwin, Jones, and Mundo 1996; Hafer and Bègue 2005), or when the work of the organization lacks identifiable individuals (e.g., organizations focused on climate change). Thus understanding the conditions under which a more abstractly framed cause can be effective at garnering financial contributions is of considerable value to marketers.

The Moderating Role of Resource Abundance

As noted earlier, we propose that one of the reasons why money is construed as relatively more concrete (and less abstract) than time is that, in general, money is seen as more finite and tangible compared to the resource of time. As such, we introduce a theoretically motivated moderator of our results: resource abundance. We propose that, under normal conditions, money is seen to be lower in abundance compared to time, and this contributes to construals of money as relatively more concrete. However, when the resource of money is seen as abundant, the nature of the relationship may differ.

We build our predictions off recent research that has found results that, at first glance, seem to contradict our key prediction that money is more concrete (and less abstract) than time. In particular, Hansen, Kutzner, and Wanke (2013) provide evidence that the concept of money,

relative to neutral concepts, is construed as more abstract in nature. Importantly, however, these authors find that the effect is attributable to having a *large volume of money*. Hansen and colleagues propose that this effect emerges because such thoughts of wealth and abundance signal a safe environment, as well as the fact that the consumer has personal strength and resources, leading to higher-level construals. That is, it appears that thinking about an *abundance of money* (and not just money in and of itself) yields a more abstract mindset (Hansen et al. 2013; study 3). Thus while we propose that consumers generally construe money as being less abstract than time, there may be conditions under which this effect is not observed. Under normal conditions (i.e., when having large quantities of the resource is not explicitly brought to mind), we predict that money is viewed as relatively more concrete compared to time. However, when the resource is perceived as relatively abundant, this difference is not predicted to be observed. More formally, when considering the resource of money we predict:

H3a: Under conditions of perceived nonabundance, money will be viewed as more concrete than time.

H3b: Under conditions of perceived abundance, money will be no longer be viewed as more concrete than time.

Although we predict that perceptions of abundance will mitigate our basic observed effect, it is also possible that a reversal of our basic effect may be observed. Indeed, the reasoning provided by Hansen et al. (2013) suggests that it is only the resource of money that has the unique quality of reminding people of their security and access to resources, something that becomes particularly salient under conditions of abundance. Thus it is possible that under conditions of abundance, consumers may exhibit even more abstract construals in response to the resource of money as compared to time. Given that time is perceived as relatively abstract under normal conditions, further priming abundance may not further increase perceptions of abstraction when considering time as a resource.

The Current Research

In sum, the current research sets out to demonstrate how consumers differentially construe the resources of money and time. We propose that, all else equal, money is construed in relatively lower-level, concrete terms while time is construed in relatively higher-level, abstract terms and that this has implications for effective fund- and time-raising for causes. Our first contribution, then, is that we empirically demonstrate a previously unidentified nuance in how consumers construe the resources of money and time (study 1). The literature on charitable contributions has largely focused on monetary donations (e.g., Fisher, Vandenbosch, and Antia 2008; White and Peloza 2009), contributions of time as a volunteer (e.g., Rudd, Vohs, and Aaker 2012), or both as separate dependent variables in separate studies (e.g., Ein-Gar and Levontin 2013). However, the literature has not examined the relative generosity of consumers for one resource *compared* to another (for an exception, see Liu and Aaker 2008). Thus, we not only build on past work on construal level by demonstrating how the focal resource varies in terms of relative abstraction, we also build on work examining charitable giving of money and time more generally.

Our second contribution is that our conceptualization proposes that these differing consumer construals for money versus time have important implications for how marketing communications might best garner charitable support. We demonstrate that when a marketing request for money (time) is paired with a concrete (abstract) consumer mindset, this leads to the most positive charitable intentions and behaviors. We investigate the role of the consumer mindset by examining both the degree of abstractness conveyed by the marketing communication itself (study 2) and individual differences in construal level (study 3). Importantly, our work diverges from that of Fujita et al. (2008) and Ein-Gar and Levontin (2013), which has uncovered matching effects in charitable giving based on construal level. This past work manipulates construal level by making the victim appear more specific and identifiable and then matching the appeal to the specificity of the target. The current work examines the theoretically novel and practically relevant possibility that the requested *resource itself* (i.e., time vs. money) may lead to a concrete as opposed to abstract mindset. We further demonstrate that aligning the resource with the construal level of the appeal can lead to positive charitable intentions and behaviors.

Third, we highlight a theoretically relevant moderator of our effects—resource abundance. In doing so, we also clarify why our results may, at first blush, appear to contrary to other work that proposes that money is construed as being somewhat abstract in nature (Hansen et al. 2013). Importantly, we build on this work to emphasize that money is generally construed as more concrete than time, but that this effect is no longer observed when a sense of abundance of the resource is activated (study 4). Moreover, we demonstrate that a manipulation that makes money seem more abundant can lead consumers to have more positive reactions to causes framed in more abstract terms (study 5).

STUDY 1: CONSTRUAL OF ADVERTISEMENT CHARACTERISTICS

Study 1 provides a preliminary investigation of the notion that, in the context of charitable requests, money is construed more concretely while time is construed more abstractly. In particular, we examine whether being

presented with an advertisement containing a request for charitable donations of money (vs. time) would influence the ways in which consumers construe the request. We predict that when consumers consider the resource of money (time), they will be more likely to report more concrete (vs. abstract) cognitions about the cause.

Method

This study utilized a simple one-factor (Donation Type: money vs. time) between-subjects experimental design with participants randomly assigned to condition. Seventy-five undergraduates at a large North American university (University of Calgary; 64% female; mean age = 20.50 years; standard deviation [SD] = 1.86) took part in an online study in exchange for course credit. Participants viewed a charitable advertisement for Habitat for Humanity. This charity was chosen after pretesting to select a cause that was relatively important to the sample demographic but not polarizing or controversial in any way.

Participants were given background information about the organization and then viewed an advertisement on which they would ostensibly provide feedback and ratings. Within the advertisement, participants were presented with a request for either money or time, which was manipulated through the wording: "Through donors [*volunteers*], Habitat builds and rehabilitates simple, decent houses alongside homeowner families." "We particularly need donors [*volunteers*] who are prepared to make a difference by contributing money [*time*]." After viewing the advertisement, participants were asked to "Reflect on when you read the advertisement—what did you think about?" and then report the extent to which they thought about the "specifics of the organization" (vs. "generalities of the organization"), "specifics of the issue" (vs. "generalities of the issue"), and "specifics of the ad" (vs. "generalities of the ad") on a scale from 1 to 6. The items were averaged to create a cause construal scale ($\alpha = .70$). A higher (lower) value on this measure indicated more abstract (concrete) cognitions in response to the request for money versus time.

Results and Discussion

An independent samples *t* test revealed that a significant difference between donation-type conditions emerged when predicting consumer construals of the cause ($t(72) = 2.73$, $p < .01$). When the message included a request for money, individuals reported less abstract (more concrete) cognitions ($M = 3.18$; SD = 1.15) than when the message included a request for time ($M = 3.92$; SD = 1.17). Money was directionally more concrete ($t(36) = -1.69$, $p = .10$, although this did not reach significance), whereas time was significantly more abstract ($t(36) = 2.17$), $p < .05$) than the scale midpoint (i.e., 3.5).

Study 1 provides preliminary support for hypothesis 1. In particular, considering money (vs. time) leads individuals to think7 more concretely (vs. abstractly) about marketing messages. Thus study 1 provides evidence that thinking about money leads to relatively more concrete (and less abstract) construals than does thinking about time.

STUDY 2: ADVERTISING MESSAGE CONSTRUAL AND ACTUAL CHARITABLE CONTRIBUTIONS OF TIME VERSUS MONEY

In study 2 we test the second proposition following from our proposed conceptualization. In particular, if our conceptualization that money is construed as relatively more concrete (and less abstract) than time is correct, our observed effects should be moderated by the extent to which a request for charitable giving is positioned in more concrete versus abstract terms. Following from hypothesis 2, we predict that more concrete communications regarding the organization will lead to increased contributions of money as opposed to time. Conversely, more abstract communications regarding the organization will lead to increased contributions of time as opposed to money. Because researchers have criticized work examining prosocial consumption in ways that measure only consumer attitudes and intentions rather than actual behaviors (Auger and Devinney 2007; White, MacDonnell and Ellard 2012), study 2 examines real consumer contribution behaviors.

Method

A total of 64 undergraduates at a large North American university (University of Calgary; 71.9% female; mean age = 22.25; SD = 1.72) participated in a 2 (Message Construal: concrete vs. abstract) × 2 (Resource Type: money vs. time) between-subjects experimental design in exchange for $5 and course credit. Participants were paid a nominal amount for the study to ensure that they all had cash on hand with which to make a monetary donation if they chose to do so. Participants were provided with one of two charitable advertisements for the United Way, using the pretested message construal. In the concrete-construal condition the advertisement read, "Your donation will be used to *serve breakfast* so kids don't go to school hungry." In the abstract-construal condition, the advertisement read, "Your donation will be used to *address hunger* so kids don't go to school hungry" (see appendix). To ensure that the language used in the message construal differed significantly on abstraction (vs. concreteness) specifically, a pretest was conducted on the messages. Participants ($n = 123$) read both versions of the message construal manipulation and then evaluated how "concrete" (1) to "abstract" (6) each message was. Participants found the abstract message

to be significantly more "abstract" ($M = 4.72$; SD = 1.67) than the concrete message ($M = 2.33$; SD = 1.39; $t(122) = 12.14$, $p < .001$).

In the focal study, participants were asked to provide feedback on the advertisement, which was ostensibly the focus of the survey. Participants were also asked to rate the extent to which they agreed with two items on a 1 (Strongly disagree) to 7 (Strongly agree) scale, including "I am confident that by contributing money to the United Way I can help build a better community" and "I am confident that by contributing time to the United Way I can help build a better community" ($r = .79$). These two items were collapsed to create an index of contribution confidence. Given that this study involved allocations of real money and time, we felt that consumer confidence in the efficacy of the cause might be important to control for. For example, recent research shows that consumers are cautious about how much their charitable contributions really do go directly to benefit the cause (e.g., Gneezy, Keenan, and Gneezy 2014). Finally, participants were asked to complete demographic measures.

At the end of the study, the donation request manipulation was administered. Participants were told that the university was raising either money (or time) for the United Way and were provided with an envelope and a slip asking them to record the number of dollars or hours they would like to contribute. In the money condition, participants sealed their monetary donation in the envelope. In the time condition, participants wrote their contact information down so the organization could reach them. Consistent with the instructions given to participants, their monetary donations were made to the United Way on behalf of the participants in this study. In addition, the contact information of those who chose to volunteer was also submitted to the United Way.

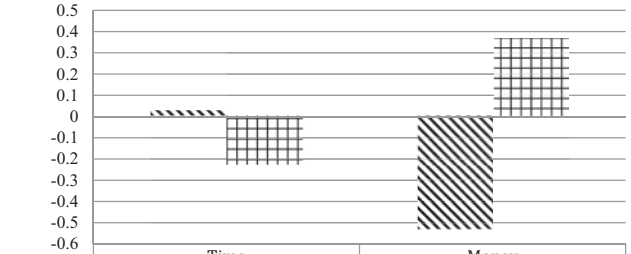
Results and Discussion

Given we wished to compare the relative contribution of dollars and time, the number of dollars or hours a participant indicated was converted to a z score for analysis, wherein a higher number indicated a more generous contribution. A 2 (Message Construal: concrete vs. abstract) × 2 (Resource Type: money vs. time) between-subjects analysis of covariance, controlling for contribution confidence ($F(1, 59) = 8.08$, $p < .01$; see Figure 1). We note that without employing this covariate, the model was still significant ($F(1, 60) = 4.74$, $p < .05$). Planned contrast confirmed that, when the cause was positioned more concretely ("serve breakfast"), consumers were significantly more likely to contribute when solicited for money ($M = .37$; SD = .83) than when asked to give time ($M = -.23$; SD = .69; $t(59) = 3.02$, $p < .01$), whereas when the cause was positioned in more abstract terms ("address hunger"), consumers were more likely to contribute when solicited for time ($M = .03$; SD = 1.04) than when asked to give money ($M = -.53$; SD = .77; $t(59) = 2.51$, $p < .05$).

Study 2 provides support for the notion that when the marketing appeal is more concrete, consumer contributions of money as opposed to time are significantly enhanced. However, when the marketing appeal is more abstract, consumer contributions of time as opposed to money increase. This result provides additional support for the proposition that, all else equal, money is construed as more concrete (and less abstract) than time. In addition, this study demonstrates that the alignment of the construal level of the consumer's mindset (as activated via the marketing appeal) with the construal level of the resource being requested is a particularly effective strategy.

FIGURE 1

CONTRIBUTIONS OF TIME AND MONEY AS A FUNCTION OF MESSAGE CONSTRUAL TYPE (STUDY 2)



	Time	Money
Abstract	0.03	-0.531
Concrete	-0.227	0.37

STUDY 3: INDIVIDUAL DIFFERENCES IN CONSTRUAL AND CONTRIBUTIONS OF TIME VERSUS MONEY

Study 3 examines our predictions in another way—by measuring individual differences in consumer construal level and testing whether alignment with the consumer's chronic level of construal and the requested resources leads to positive charitable intentions. Utilizing an individual difference measure provides additional evidence for our conceptualization and helps to rule out the possibility that it is some artifact of the construal level manipulation employed in study 2 that is driving the observed effects.

Method

A total of 164 undergraduates at a large North American university (University of Calgary; 49.4% female; mean age = 21.42; SD = 2.46) participants completed a modified version of Vallacher and Wegner's (1987) 25-item action orientation scale ($\alpha = .85$) on a 4 point scale, between three and seven days prior to the focal study session. This scale assesses the extent to which an individual construes an action (e.g., locking a door) in more concrete (e.g., putting a key in the lock) or more abstract (e.g., securing the house)

terms. Each action was rated on a 4 point scale, indicating the degree to which the respondent thought that it was best explained by the more abstract or more concrete description. A higher score on this measure indicates a more abstract mindset, whereas a lower score represents a more concrete mindset. Scores were averaged such that higher (vs. lower) scores represented a dispositional tendency to construe events more abstractly (vs. concretely). Participants were also asked to rate the extent to which they were familiar with and knowledgeable about the United Way on a 7 point scale (1 = Strongly disagree; 7 = Strongly agree; $r = .74$).

In the study itself, participants came in to the lab and viewed a charitable advertisement for the United Way in which participants are solicited to support the regional chapter (see online appendix). As the key dependent measure, participants were asked to indicate "How many *dollars* would you contribute to the United Way" and "How many *hours* would you contribute to the United Way" (in counterbalanced order). For analysis, dollars and hours intended were converted to z scores, and a difference score was then calculated (see Judd, Kenny, and McClelland 2001; White and Peloza 2009). Higher numbers on this measure indicate greater time (as opposed to money) contribution intentions.

Results and Discussion

Hierarchical multiple regression was used to assess the effect of construal preference on contribution type ($M = 0$; SD = 1.20). General attitude toward the United Way ($M = 2.97$; SD = 1.47) entered in the first step was significant ($R^2_{change} = .03$, $F(1, 160) = 4.73$, $p < .05$). Construal preference ($M = 2.72$; SD = .47) was entered in the next step and significantly improved the fit of the model ($R^2_{change} = .025$, $F(1, 159) = 4.13$, $p < .05$). Those disposed to a more abstract mindset were more likely to intend to contribute time (as opposed to money; $\beta = .16$; $t = 2.31$, $p < .05$).

We also examined whether our results held when entering counterbalancing of dependent variable presentation into the model. When including counterbalancing in the model, the order variable was significant ($t(158) = 2.10$, $p < .05$, $\beta = -.161$). This reflected the fact that people were more likely to commit to donating money after time had been requested first, than to commit to donating time when money had been requested first. This replicates the time-ask effect observed by Liu and Aaker (2008). Importantly, however, construal remained significant over and above the effect of counterbalancing ($t(158) = 2.18$, $p < .05$, $\beta = .168$).

Taken together, the first three studies provide converging support for the notion that money (time) is construed more concretely that time (money). Further, studies 2 and 3 provide additional support for the construal alignment hypothesis (hypothesis 2), demonstrating the effectiveness of alignment between money (time) and a concrete (abstract) mindset. Importantly, we show that the effects hold for real contributions of money and time. Further, our studies point to the notion that these effects can arise when the consumer mindset is manipulated through the concreteness versus abstractness of the marketing message itself and/or measured based on the consumer's dispositional tendency to view events as more concrete versus abstract.

STUDY 4: THE ROLE OF RESOURCE ABUNDANCE IN CONSTRUALS OF TIME AND MONEY

Studies 1 through 3 provide convergent support for hypothesis 1—namely, that time is perceived as relatively more abstract than money, and money as relatively more concrete than time. They further suggest that matching the consumer's mindset (via the message or chronic individual differences) to the type of resource requested can be particularly efficacious in garnering charitable support. Next, we assess a potential moderator of this effect—resource abundance. Indeed, one of the reasons why money is viewed as more concrete than time is because money is perceived as more finite and tangible than time. Under conditions of abundance of money, money may be viewed as more abstract, which may mitigate the tendency for consumers to view money as more concrete than time. As evidence of this notion, Hansen et al. (2013) demonstrate that, when an abundance of money is highlighted, money, relative to neutral concepts, is more abstract. This is notable because, whereas under conditions where abundance was not highlighted money is construed in more concrete terms than time (studies 1–3), under conditions of abundance this may be mitigated or a pattern wherein money becomes viewed as more abstract may be observed. We anticipate that, as in our previous studies, under conditions of relative nonabundance, money will be viewed as more concrete than time. Under conditions of perceived abundance, money will no longer be viewed as more concrete than time, and may even lead to a reversal wherein money is construed as relatively more abstract. Indeed, according to Hansen et al. (2013), only the resource of money has the unique quality of reminding people of their security and access to resources, something that becomes particularly salient under conditions of abundance.

Method

A total of 160 participants were recruited through Amazon's Mechanical Turk. Seven cases were removed due to duplicate Internet Protocol addresses, yielding a sample of 153 (56.2% female; $M = 34.10$; SD = 12.25 years). This study utilized a 2 (Resource Abundance: abundance vs. nonabundance) × 2 (Resource Type: money vs. time) between-subjects design, with an additional hanging

control condition. Participants were first asked to think and list thoughts about having a lot (i.e., abundance) versus a little (i.e., nonabundance) of time (vs. money) or to list their current thoughts (hanging control):

> Time (money) is very important, and we are interested in how people think about time (money). Please take a moment to consider having a lot of (having little) money (time). Think about what it would be like, what you might think or do, et cetera. Next, we will ask you to list your thoughts about having a lot (having little) money (time). Please list a thought in each of the spaces provided below.

After this task, participants in all conditions completed the Vallacher and Wegner (1987) action identification scale to assess the level of construal activated. As with previous studies, the scale was modified from a choice task to a 4 point scale, with a higher number indicating a more abstract mindset. Scores across the 25 items were averaged to create an index ($\alpha = .87$). Although designed as a trait measure, the Vallacher and Wegner (1987) scale has been successfully validated and utilized as a state variable in past research (e.g., Förster et al. 2004; Lee, Keller, and Sternthal 2010).

Results and Discussion

First, checks for the abundance versus nonabundance manipulation were assessed. Participants in the nonabundance condition thought significantly more about "having little" (93%) than those in the abundance condition, who thought significantly more about "having a lot" (91%; $\chi^2 = 82.76$, $p < .001$), indicating that the manipulation was successful. Next, a 2 (Resource Abundance: abundance vs. nonabundance) × 2 (Resource Type: time vs. money) between-subjects analysis of variance (ANOVA) was conducted on the construal level ratings, yielding a significant interaction between resource abundance and resource type (F (1, 124) = 7.40, $p < .01$; see Figure 2). In particular, when abundance was activated, money ($M = 2.84$; SD = .68) was construed as marginally more abstract than time ($M = 2.58$; SD = .56; $t(124) = 1.74$, $p = .08$); this effect was nonsignificant but directional. Under nonabundance, time was significantly more abstract ($M = 2.71$; SD = .58) than money ($M = 2.40$; SD = .55; $t(124) = 1.99$, $p < .05$), replicating the findings of our previous studies.

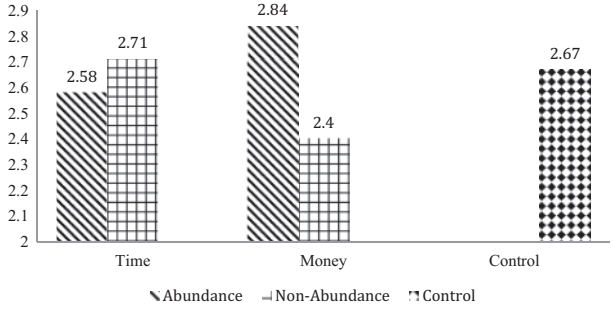
Looking within each resource type, money was construed as significantly more abstract under abundance ($M = 2.84$; SD = .68) than under nonabundance ($M = 2.40$; SD = .55; $t(124) = 2.79$, $p < .01$), supporting our reasoning that abundance would increase the abstraction of money and hypothesis 3. No significant differences in construal level emerged for time between nonabundance ($M = 2.71$; SD = .58) and abundance ($M = 2.58$; SD = .56, $t(124) = .93$, not significant). We also compared our effects to the control condition. The one-way ANOVA including all five conditions (money/abundance, money/nonabundance, time/abundance, time/nonabundance, and control) approached significance ($F(1, 148) = 2.37$, $p = .06$). The money/nonabundance condition was significantly lower on construal than the control condition ($t(148) = 1.98$, $p < .05$). However, no significant differences were observed between the control condition and any of the other experimental conditions (all ts < 1.06 and ps > .30).

These results replicate the effect that, under nonabundance, time is construed in more abstract terms compared to money. In addition, under abundance, this pattern was eliminated. In fact, the pattern of results, albeit not statistically significant, suggests that under conditions of abundance, money was construed as somewhat more abstract compared to time. Our finding that money was more abstract under abundance than nonabundance replicates study 3 of Hansen et al. (2013). However, Hansen et al. did not include a time condition, so the fact that we do not find a difference between money and time under conditions of abundance does not fail to replicate Hansen et al.'s effects. Notably, we demonstrate a condition under which the tendency to construe money as more concrete than time is not observed, and we see the moderating effect of abundance on reactions to money as a key extension of this previous work.

Interestingly, these results also suggest that abundance (vs. nonabundance) did not affect construal of time in a manner similar to how it affected money and in fact did not appear to alter construal for time at all. The pattern of results suggests the possibility that time is seen as unwaveringly abstract, whereas thoughts of relative abundance are able to shift perceptions of money. This suggests that abundance may be a focal mechanism underlying consumer construals of money, but that additional mechanisms might also underlie construals of time. We note this is a different mechanism potentially necessary for altering construal of time, and we discuss this further in the General Discussion section.

FIGURE 2

CONSUMER CONSTRUALS AS A FUNCTION OF RESOURCE ABUNDANCE AND RESOURCE TYPE (STUDY 4)



STUDY 5: EFFECT OF RESOURCE ABUNDANCE AND MESSAGE CONSTRUAL ON CHARITABLE DONATION INTENTIONS

Studies 2 and 3 provide evidence that alignment of a marketing request for charitable contributions of money versus time with concrete as opposed to abstract mindset leads to the most positive charitable intentions and behaviors. To integrate these findings with the extant literature, study 4 suggests that the level of perceived abundance (vs. nonabundance) of the resource moderates the extent to which money is construed in abstract (vs. concrete) terms. It also indicates that the effect of abundance (vs. nonabundance) on construal is more pronounced for money than for time.

This finding has important practical implications given that marketers wishing to generate support in the form of money might do well to communicate to consumers in concrete terms, whereas marketers wishing to generate support in the form of time might do well to communicate to consumers in more abstract terms. However, there are instances when organizations might prefer to frame their message abstractly (e.g., addressing the general issue of poverty) rather than concretely (e.g., serving meals to a specific group) when calling for monetary donations. Further, organizations are ethically and legally bound to utilize dollars for the purpose for which they are collected; thus encouraging contributions to an organization's overall cause may allow that organization to invest more flexibly than if funds are raised in support of one particular activity. One problem that may arise, then, is what happens if the marketer wishes to encourage monetary donations but would like these donations to be allocated to a generally framed as opposed to a specifically framed cause or initiative.

Drawing on our results from study 4, we propose that factors that make the resource of money seem relatively more abundant (vs. nonabundant) will lead individuals to respond more positively to appeals for money that are more abstract than concrete. We propose that a manipulation that asks individuals to consider the relative abundance (vs. nonabundance) of money will moderate responses to concrete versus abstract appeals for donation. In particular, we predict that when money is seen as nonabundant, consumers will donate more when the appeal is concretely versus abstractly framed. However, when money is seen as abundant, consumers will donate more when the appeal is abstract versus concrete.

Method

A total of 149 undergraduates from City University London took part in the study in exchange for course credit and £1, provided in £0.20 coins. This was also done to ensure that participants would have money to donate to the cause at the end of the study if they so wished. Utilizing a 2 (Resource Abundance: abundance vs. nonabundance) × 2 (Message Construal: concrete vs. abstract) between-subjects experimental design, the dependent measure was actual donation of money to the cause. Two people who failed an attention check were removed for the purposes of data analysis ($n = 147$). We note the patterns and significance remain the same if we include these individuals.

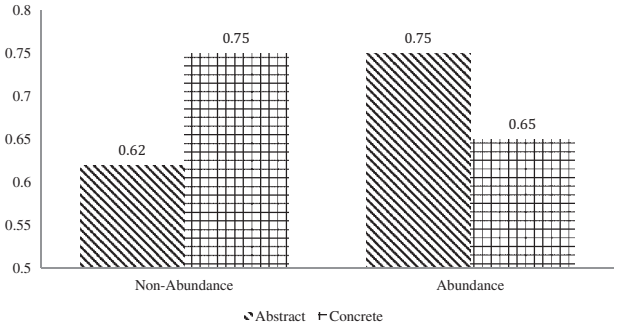
We created our manipulation of relative abundance by modifying an existing procedure from Piff et al. (2010). In particular, participants were first asked to view an image of a ladder and were asked to either compare themselves to people at the bottom of the ladder in terms of their access to resources (relative abundance) or to compare themselves to people at the top of the ladder in terms of their access to resources (relative nonabundance; see online appendix for this manipulation). Participants then viewed an appeal from a charity that provides meals and other services to low-income families. The charitable appeal either solicited support in more concrete ("serve a meal") or more abstract ("address hunger") terms. At the end of the session, participants were given the opportunity to donate to the cause. These actual donations were made in £0.20 increments, ranging from £0 to £1 donated, and this behavioral dependent variable was then converted to a logarithmic value to correct for skewness. We note that the pattern of results and significance levels remain the same when the data were untransformed.

Results and Discussion

First, a 2 (Resource Abundance: abundance vs. nonabundance) × 2 (Message Construal: concrete vs. abstract) between-subjects ANOVA was conducted on the donation behavior dependent variable, yielding a significant interaction between resource abundance and message construal ($F(1, 143) = 9.96$, $p < .01$; refer to figure 3). In the nonabundance condition, consumers donated significantly

FIGURE 3

MONETARY DONATIONS AS A FUNCTION OF RESOURCE ABUNDANCE AND MESSAGE CONSTRUAL (STUDY 5)



more when they were presented with a concrete ($M = .75$; $SD = .14$) compared to an abstract charitable appeal ($M = .62$; $SD = .28$, $t(143) = 2.79$, $p < .01$), replicating our previous findings. Notably, in the abundance condition, the opposite effect was observed such that consumers donated significantly more when presented with an abstract charitable appeal ($M = .75$; $SD = .11$) than when presented with a concrete appeal ($M = .65$; $SD = .24$, $t(143) = -2.04$, $p < .05$).

Study 5 shows that when the notion of nonabundance is salient, as in studies 2 and 3, consumers were more inclined to donate money to a concretely framed cause. Conversely, when relative abundance was primed, the reverse effect was observed, wherein participants donated more money in response to an abstract as opposed to a concretely framed appeal. Importantly, these findings highlight a condition under which requests for monetary contributions can be encouraged when the marketing appeal presents concrete as opposed to abstract information: when money seems abundant.

GENERAL DISCUSSION

Taken together, the findings of the current studies provide converging evidence for the notion that money is generally construed more concretely than time, and time is generally construed more abstractly than money. Second, we show that the alignment of money (vs. time) with a concrete (vs. abstract) consumer mindset, based on both a manipulation of construal level within the marketing message and individual differences, leads to more positive behaviors and intentions (studies 2 and 3). This indicates a boundary condition for the notion that concretely framed appeals are particularly effective in influencing charitable giving (e.g., Kogut and Ritov 2005a, 2005b; Loewenstein and Small 2007; Small, Loewenstein, and Slovic 2007) by demonstrating that a concretely framed charitable message is less effective than an abstractly framed one when time is the contribution being sought.

Furthermore, we examine the moderating role of resource abundance. We find that money is seen as more concrete than time under normal conditions, and when a sense of resource nonabundance is salient, more concrete construals are activated in response to money as opposed to time. In contrast, when a sense of abundance is salient, these effects are not observed. In fact, the pattern is such that money is perceived as directionally more abstract than time. This finding suggests that one of the reasons why money is seen as more concrete (and less abstract) than time is because money is indeed viewed as more finite and physically and conceptually tangible than time. Under conditions where money is viewed as more abundant than time, this is no longer observed. One question that arises, however, is why the manipulation of abundance appeared to shift consumer construals in response to money but not in response to time. One possibility is that time is consistently viewed as abstract, and activating abundance does not further increase this. In addition, while we focus on one underlying mechanism for the observed effects (that money is viewed as more finite and tangible than is time), we do note that this effect is likely multiply determined. One possibility for future research would be to further delve into whether making time more tangible might reverse the observed effects for time.

Importantly, the identification of the moderating role of resource abundance also points to practical implications for marketers. While a concrete frame may be effective for fundraising, there are many situations in which charitable marketers may prefer to frame requests in more abstract terms when asking for monetary donations, and the results of study 2 show that in general such an approach can be problematic. The results of study 5 suggest that charitable marketers may do well when engaging in their fundraising efforts to prime a sense of abundance and to encourage consumers to construe money in more abstract terms. Under such conditions of alignment, consumers donate more in response to an abstractly versus concretely framed appeal. Thus the present research suggests an alternative to conventional marketing wisdom (i.e., that concrete appeals are uniformly more effective) by distinguishing cases where such a strategy might be most effective (e.g., when paired with a request for time or when money is reconstrued in abstract terms).

Practical Implications of the Research

The first clear implication for marketers is that they should align the goal of their campaign (i.e., fund-raising vs. time-raising) with the construal level communicated in the marketing message. If the marketing goal is to solicit monetary contributions, then positioning the cause in more concrete terms is likely to be more effective than framing the message in abstract terms. Conversely, if the objective is to solicit contributions of time, the marketer would do well to position the cause more abstractly (as opposed to concretely).

Another implication of the current research supports marketers who may intend to encourage monetary donations to an abstractly (rather than concretely) framed cause. This could be because the marketer might wish to present the organization as having a high-level strategic mission that harbors many specific subcauses. Further, one issue that arises when fundraising is the fact that organizations are ethically and legally bound to utilize dollars for the purpose for which they were allocated by the donor. Thus one goal for charitable marketers might be to encourage monetary contributions to an organization's overall cause in a way that allows the organization to invest more flexibly and broadly than if funds were raised in support of one

specific program. The results of studies 4 and 5 suggest that marketers can influence the way in which money is construed in more abstract terms (e.g., via abundance), which can be employed by charitable marketers to encourage more positive donation responses.

In addition, there may be other ways of making money seem more abstract. Because the tangible nature of money is one of the proposed mechanisms underlying the observed differences in construals of the resources of money and time, it seems plausible that forms of money that are less tangible, or which make observing the characteristics or quantity of money less clear, may make money more abstract. We have conducted some preliminary research to test this possibly. In particular, we collected data from a community sample of participants at a farmers' market and examined whether priming a more tangible form of money (i.e., a picture of several monetary bills of varying denominations) versus a less tangible form of currency (i.e., a picture of a credit card), would interact with the level of abstraction in a donation appeal to predict consumer donation intentions. Consistent with this expectation, the results showed a significant interaction effect. Importantly, when the advertising message was framed abstractly, donation intentions were significantly higher when individuals were primed with credit ($M = 5.15$; $SD = 1.65$) as opposed to cash ($M = 3.87$; $SD = 1.60$; $t(70) = 1.36$, $p < .05$).

Directions for Future Research

Considering the burgeoning role of corporate social responsibility in raising both money (e.g., total corporate cash donations in the United States in 2010 were estimated at $15.29 billion; Giving USA 2012) and time (e.g., 40% of Fortune 500 companies recognize employee volunteerism; Double the Donation 2011), the efficacy of abstractly (vs. concretely) framed messages targeted at larger organizations for employee and corporate contributions warrants investigation. In addition, there are other ways to contribute charitably that we did not examine that future research may find fruitful, such as giving blood (Lee, Piliavin, and Call 1999) or property/possessions. For example, how might different modes of construing these alternative forms of donation behavior impact consumer responses?

One interesting direction for future research raised by the results of study 4 is to examine what psychological mechanism might underlie the relationship between time and abstract thinking. In study 4, the activation of thoughts of relative nonabundance did not appear to make people react with a more concrete mindset when thinking of time. One possibility is that time is always relatively abstract. However, another possibility is that there might be ways to activate more concrete thoughts related to time. For example, when one thinks of specific activities one might do with their own time, it may be the case that time is perceived more concretely. Future research may examine the factors that make time more concrete.

We also note that the current work builds on recent research that has found matching effects in terms of consumer responses to charitable appeals (Ein-Gar and Levontin 2013). Of note, this past research found that matching on the basis of a single identified victim (vs. a more abstract view of the organization) and psychological distance leads to more positive consumer donation intentions. We extend this by showing that the requested resource itself can also have implications for matching effects in the context of charitable giving. It is noteworthy that while some of Ein-Gar and Levontin's (2013) studies measured time donation intentions and some of their studies measured monetary donation intentions, these two resources were not compared within the same context. These authors find positive effects of a match with the victim and the psychological distance, regardless of resource requested. It may well be that having any two elements in a request that align is enough (e.g., victim and psychological distance, without necessarily matching on resource as well). However, one possibility is that varying the resource to match the victim and the psychological distance might enhance the effects even more. Future research might examine such a possibility.

With respect to money and time, the consumer landscape is rife with examples where consumers must make decisional trade-offs between resources—for example, cases such as convenience services (e.g., spending money/saving time with a housekeeper vs. saving money/spending time to clean the house), products (e.g., saving time/spending money on a smart phone vs. saving money/spending time to use conventional means of scheduling and obtaining information), and encouraging consumer use of public transit (e.g., saving money/spending time by taking the bus vs. saving time/spending money/polluting the air to drive). In addition, there are contexts where the concept of money becomes increasingly abstract. For example, virtual currencies such as BitCoin as well as online games that allow for the purchase of virtual goods have implications that render money more abstract. Thus future research might examine the interplay between construals of money and time in other consumer contexts, and the bearing this may have on consumer behavior.

Finally, the current conceptual framework focuses on how time and money can generally be associated with more abstract as opposed to more concrete construals. However, one direction for future work might be to take a more fine-grained approach, examining all the dimensions of psychological distance (e.g., temporal distance, hypotheticality, spatial distance, social distance), further examining meaningful nuances like those highlighted here. Taken together, the current research provides initial evidence for the nature of time (vs. money) as conceptually more abstract (vs. concrete), along with some conditions

under which contributions of time (vs. money) might be maximized, and one condition under which this effect appears to be reversed. These findings suggest that money and time do not lead to equivalent prosocial outcomes, and that they may instead be construed and contributed in different ways. This research thus serves as a platform for understanding and further clarifying divergent findings in the prosocial literature, and setting an agenda for future research to consider prosocial contributions of time (vs. money) as conceptually distinct.

DATA COLLECTION INFORMATION

- Cause Construal Pretest: University of Calgary, Canada, collected and analyzed by Rhiannon MacDonnell (2011)
- Study 1: University of Calgary, Canada, collected by a research assistant (2010) and analyzed by Rhiannon MacDonnell
- Study 2: University of Calgary, Canada, collected and analyzed by Rhiannon MacDonnell (2011)
- Cause Construal Pretest: Collected via MTurk (2013) and analyzed by Rhiannon MacDonnell
- Study 3: University of Calgary, Canada, collected by a research assistant and analyzed by Rhiannon MacDonnell in 2010
- Study 4: Collected via MTurk and analyzed by Rhiannon MacDonnell (2013)
- Study 5: Collected at Cass Business School, London, UK, by Rhiannon MacDonnell (2014) and analyzed by Rhiannon MacDonnell and Katherine White

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