JENNIFER SAVARY, KELLY GOLDSMITH, and RAVI DHAR*

The authors examine how a reference to an unrelated product in the choice context affects consumers' likelihood of donating to charity. Building on research on self-signaling, the authors predict that consumers are more likely to give when the donation appeal references a hedonic product than when a utilitarian product is referenced or when no comparison is provided. They posit that this phenomenon occurs because referencing a hedonic product during a charitable appeal changes the self-attributions, or self-signaling utility, associated with the choice to donate. A series of hypothetical and actual choice experiments demonstrate the predicted effect and show that the increase in donation rates occurs because the self-attributions signaled by a choice not to donate are more negative in the context of a hedonic reference product. Finally, consistent with these experimental findings, a field experiment shows that referencing a hedonic product during a charitable appeal increases real donation rates in a nonlaboratory setting. The authors discuss the theoretical implications for both consumer decision making and the self-signaling motives behind prosocial choice.

Keywords: self-signaling, charitable donation, context effects, prosocial behavior, choice

Giving Against the Odds: When Tempting Alternatives Increase Willingness to Donate

Most consumer research has treated choice as the pursuit of consumption-related goals. However, motives for choice often extend beyond the consumption benefits associated with a chosen option (Ariely and Norton 2009; Levy 1959; Mick 1986). For example, consumers may derive reputational benefits from the information certain choices convey about themselves to others (Berger and Heath 2007; Griskevicius et al. 2007). Recently, researchers have argued that consumers may also derive value beyond consumption from making choices that enhance their self-image, for example, by sig-

*Jennifer Savary is a doctoral candidate (e-mail: Jennifer.Savary@ Yale.edu), and Ravi Dhar is George Rogers Clark Professor of Management and Marketing (e-mail: Ravi.Dhar@Yale.edu), Yale School of Management, Yale University. Kelly Goldsmith is Assistant Professor of Marketing, Kellogg School of Management, Northwestern University (e-mail: Kelly-Goldsmith@Kellogg.Northwestern.edu). The authors thank the *JMR* review team and members of the Yale School of Management JDM Lab for their input on various aspects of the research. They are especially grateful to Margaret Gorlin, Jung K. Kim, Angela Lee, Amanda Levis, George Newman, Caroline Roux, and Jin Youn for their helpful comments on previous versions of the article. Rebecca Ratner served as associate editor for this article.

naling information to the self (i.e., self-signaling; Bodner and Prelec 1995, 2003; Gneezy et al. 2012). Such motives may be especially relevant in the domain of prosocial choices, which often require consumers to incur costs but rarely provide direct consumption benefits. Given the potential significance of private self-image motives for understanding prosocial decision making, the current research explores how the choice context affects the self-signal associated with prosocial behavior and the implications of self-signaling for donation choices.

Specifically, we examine consumers' willingness to donate to charity when the appeal references an equally priced product (e.g., "Please donate \$5. Note, \$5 is how much it costs to buy a pint of Ben & Jerry's ice cream"). We contrast consumers' likelihood of donating when the appeal provides no reference product with contexts in which the appeal references either a hedonic product or a utilitarian product. In a series of laboratory experiments and field studies, we demonstrate that consumers are more likely to give to a charity when the appeal references a hedonic product than when the appeal references a utilitarian product or a neutral context, in which no reference product is mentioned.

We explain our results based on the premise that the self-attributions signaled by the donation decision change when a hedonic product is referenced in the donation appeal. Specifically, we propose that when a donation appeal references a hedonic product, participants believe the choice not to donate signals more negative personal traits, such as self-ishness. Consistent with our theory, we find that participants believe that choosing not to donate when the appeal references a hedonic product means that they are more selfish than when choosing not to donate in other contexts. In support of the mediating role of self-signaling, we also show that this shift in self-attribution makes subsequent donations more likely.

In doing so, this research extends the understanding of the motives underlying consumer choice and makes several important theoretical contributions. First, we contribute to the literature on signaling and prosocial behavior by suggesting that even when people's donation decisions are mostly private and anonymous, these decisions can signal information about their personal traits to themselves. Second, our findings contribute to research on how referencing unrelated products in a persuasive appeal affects consumer choice. Although many advertisements reference outside goods in an effort to influence perceptions of cost (e.g., "For the price of a cup of coffee..."), little is known about whether reference products can have effects beyond cost perceptions. We show that reference products can alter the self-signaling utility in choice and, in doing so, add to the literature on the role of reference products in decision making. Finally, our findings contribute to a more nuanced understanding of opportunity costs. Recent considerations of opportunity costs suggest that references to attractive outside options are likely to decrease preference for the target option (Frederick et al. 2009). In contrast, we show that referencing certain outside options can actually increase choice incidence by changing the self-signaling utility derived from the choice.

The remainder of this article proceeds as follows: We briefly review current literature on motives for charitable giving, which leads to our prediction that one reason people donate is because of the meaning, or private signal value, of the donation. We draw from self-signaling and behavioral decision theory to propose that the self-signal associated with the decision not to donate becomes more negative when the donation appeal references a hedonic product, which in turn increases consumers' likelihood of giving. Next, we test our proposition and its implications in a series of seven studies using real and hypothetical choices. We show that (1) the self-attributions signaled by the decision not to donate are more negative when the donation appeal references a hedonic product, (2) the reference to a hedonic product in a donation appeal increases the percentage of participants who donate real money and time, and (3) this increase in giving occurs because the presence of a hedonic product affects the self-signal associated with the decision to donate. We conclude by testing an important boundary condition for the predicted effects and demonstrating the external validity of our results using a field experiment involving actual donation behavior.

SELF-SIGNALING AND THE DECISION TO DONATE

Consumers derive direct consumption utility from the choices they make, and they also derive signaling utility from the information their choices transmit. However, in the domain of charitable giving, consumers' direct consumption utility may be relatively limited: while they do make a payment, they often do not directly experience commensurate tangible benefits. This raises the question of why people give. Traditionally, two broad categories of motivations for charitable giving have been discussed: intrinsic and extrinsic. Intrinsic motivations are internal factors that stimulate donations, such as "the joy of giving" (Anik et al. 2009; Batson and Shaw 1991) and empathetic altruism (Batson and Coke 1981). Extrinsic motivations are external benefits or rewards that promote giving, such as tax breaks (Steinberg 1990) and access to exclusive events (Buraschi and Cornelli 2002). Recent theoretical models based on a utility framework propose that people derive additional utility from donations that enhance their reputation or self-image (Andreoni and Petrie 2004; Benabou and Tirole 2006, 2011). For example, Karlan and McConnell (2012) find that listing donors' names in a public newsletter increases donations; Ariely, Bracha, and Meier (2009) show that people work harder to raise money for charity when their efforts are observed by others; and Lacetera and Macis (2010) find that recognizing blood donors in a public ceremony increases the frequency of donations. These findings suggest that people are motivated by the social signal associated with their decision to give, beyond any other intrinsic or extrinsic rewards.

Much of the empirical work on the image motives for charitable giving has emphasized the role of social signaling, when the audience for the signal is external. Instead, the current research focuses on self-signaling and the notion that people's choices also can generate utility by signaling information about their own traits to themselves. Our attention to these private signaling motives is supported by previous research indicating that people make inferences about themselves based on their choices (Bem 1972; Khan and Dhar 2006). For example, participants who chose to donate \$2 of their participant payments to the Make-a-Wish Foundation rated themselves as more helpful and less selfish than participants in a control condition (Gneezy et al. 2012). In summary, people believe that their actions or choices can signal positive or negative information about their own traits.

Bodner and Prelec (2003) propose a theoretical framework that integrates traditional notions of consumption utility with the incremental utility from self-signaling. According to this model, the total utility derived from a choice is based on two distinct factors: (1) the outcome utility, or utility derived directly from consumption, and (2) the additional self-signaling utility associated with the information about oneself conveyed by the choice. In support of this model, Dhar and Wertenbroch (2012) find that the total utility associated with choosing a healthy snack (e.g., an apple) is greater when participants choose that snack from a set that includes temptations or vices (e.g., tasty chocolates) than when they choose the same snack from a set that includes only other virtuous options (e.g.,

oranges, bananas). This increase in total utility occurs because choosing a healthful snack from a set that includes temptations sends a more positive self-signal than choosing the same snack from a set that includes all healthful options. Similarly, choosing a chocolate from a set that contains some virtuous options (e.g., fruit) sends a negative self-signal (e.g., a lack of willpower), which results in lower total utility than if the chocolate is selected from a set that contains only tempting options (e.g., cake, cookies).

Building on this work, we propose that the self-signaling utility, and thus the total utility, associated with charitable giving can be changed by a reference to an equivalently priced hedonic alternative during the donation appeal. Our proposal draws on research demonstrating that consumer choice is fundamentally comparative; that is, options are evaluated relative to other options (Kahneman and Miller 1986; Schwarz and Bless 1992). Recent research indicates that references to unrelated products can affect decision making by influencing which comparisons consumers make (Simonson et al. 2012). This result holds even when the comparative options are not part of the choice set (Dholakia and Simonson 2005). For example, reference products can be used in advertisements to influence perceptions of cost by establishing the reference price consumers use when constructing a standard of comparison (Adaval and Monroe 2002; Dholakia and Simonson 2005; Nunes and Boatwright 2004). Most of the work on reference products has explored the effects of higher- or lower-priced reference products on price perceptions, which pertain to transaction utility. In this research, we examine how reference products that are similarly priced but differ in their hedonic versus utilitarian nature can affect self-signaling utility in a donation context and, in turn, affect people's choice to donate.

Our main proposition is that referencing a similarly priced hedonic product during a charitable appeal can change the self-attributions associated with the act of not giving and thereby affect donation likelihood. This phenomenon occurs because the reference product encourages the consumer to compare the choice to donate with the choice of an outside alternative. In the absence of a reference product, the choice not to donate may signal little information about one's personal traits, either because people are less inclined to spontaneously make selfattributions when comparisons are not salient or because they may generate justifiable reasons for not donating (i.e., personal budget constraints). In other words, in the absence of a reference product, the decision not to give may be an uninformative, noisy signal of one's personal traits. In contrast, the reference to a hedonic product encourages consumers to compare donating with the choice to purchase the referenced product or similar items. In such instances, people are relatively more likely to infer that their choice not to donate is a signal of selfishness, an undesirable personal trait. Through this process, the total disutility associated with choosing not to donate increases, resulting in an increased likelihood of giving.

Our self-signaling account would further predict that the nature of the referenced product will moderate the negativity of the associated self-signal and its effect on donation likelihood. Products perceived as comparable in terms of value and attractiveness can systematically vary along a hedonic versus utilitarian dimension (for a review, see Khan, Dhar, and Wertenbroch 2005). In general, hedonic products are characterized as fun, pleasurable, and indulgent (Dhar and Wertenbroch 2000; Hirschman and Holbrook 1982). Therefore, hedonic consumption is often associated with self-indulgence (Kivetz and Keinan 2006; Kivetz and Zheng 2006). If a donation appeal prompts consumers to compare the choice to donate with a hedonic product, choosing not to donate may suggest selfish motives (i.e., self-indulgence), increasing the negative self-attributions associated with not giving. In contrast, utilitarian products are characterized as functional, useful, and practical (Dhar and Wertenbroch 2000; Strahilevitz and Myers 1998). Therefore, comparing the choice to donate with a utilitarian alternative may suggest functional motives for not donating, which are less likely to lead to negative self-attributions. As a consequence, not donating in the context of a utilitarian reference product is a comparatively uninformative or neutral self-signal about one's personal traits. This suggests that people's likelihood of donating should only increase when the donation appeal references a hedonic product, not when the appeal references a utilitarian product.

We test these predictions in a series of seven lab and field experiments. Experiments 1a and 1b demonstrate that choosing not to donate in the context of a hedonic reference product signals more negative information about the self than when a utilitarian product is referenced or when no product is mentioned. Experiments 2a and 2b examine the effect of reference products on real donation choices and find that the likelihood of donating both money and time increases when a hedonic product is referenced. Experiment 3 tests our theoretical account by employing the same reference product (a blender) framed as either hedonic (e.g., "to use for making exotic cocktails") or utilitarian (e.g., "to use for making healthful smoothies") and shows that donation interest increases when the product is framed as hedonic. In support of the proposed mechanism, we also show that people believe the choice not to donate sends a more negative self-signal when the appeal references a hedonic product and that this shift in selfattributions mediates the effect of the reference product on donation interest. We next explore the external validity and managerial relevance of this effect by testing an important boundary condition (Experiment 4) and demonstrating the effectiveness of the reference product manipulation in a field setting (Experiment 5). We conclude with a discussion of the theoretical and practical implications of these findings.

EXPERIMENT 1A: THE EFFECT OF REFERENCING A HEDONIC PRODUCT ON THE SELF-SIGNAL FROM CHOOSING NOT TO DONATE

Experiment 1a tests whether the self-signal associated with the choice not to donate changes as a function of the product referenced in the appeal. We predict that when the charitable appeal references a hedonic product, the decision not to donate will be interpreted as signaling more negative information about the self than when a utilitarian product is referenced or in a control condition when no product is referenced.

Method

The experiment used a between-subjects design, with the reference product (hedonic vs. utilitarian vs. control) as the manipulated factor. Two hundred seventy-two people (65 men) were recruited from a U.S.-based online pool. All participants were shown a charitable appeal asking for a US\$5 donation to United Nations Children's Fund (UNICEF). After reading the charitable appeal, participants in the hedonic reference product condition read, "Note, \$5 is how much it costs to buy a pint of Ben & Jerry's ice cream," and saw an image of a pint of ice cream. Participants in the utilitarian reference product condition read, "Note, \$5 is how much it costs to buy Colgate 12-hour multiprotection toothpaste," and saw an image of a tube of toothpaste. Next, participants reported how they would feel about themselves if they chose not to donate. Specifically, they rated the extent to which they agreed with the statements "I am a good person," "I am compassionate," "I am sympathetic," and "I am helpful" on a seven-point scale (1 = "strongly disagree," and 7 = "strongly agree"). We employed positive statements because prior research suggests that people respond to self-concept-related assessments more accurately when the statements are positive (Marsh 1996; Schmitt and Allik 2005). Less agreement with positively phrased statements indicates a more negative self-assessment.

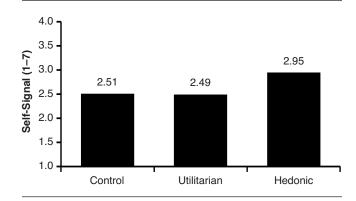
Results and Discussion

We proposed that participants would perceive the choice not to donate as signaling more negative information about the self when the appeal referenced a hedonic product than in the other conditions. To test this prediction, we reversescored the items such that higher numbers indicated increased negative self-attributions (of selfishness). Next, we formed a composite measure of selfishness by averaging participants' ratings across the four dependent measures $(\alpha = .97)$. We then submitted this measure to a single-factor analysis of variance (ANOVA) (F(2, 269) = 2.6, p = .075;see Figure 1). As predicted, planned contrasts revealed that when a hedonic reference product was present, participants interpreted choosing not to donate as a greater signal of selfishness than those in either the utilitarian reference product condition ($M_{hedonic} = 2.95$, SD = 1.6; $M_{utilitarian} = 2.49$, SD =1.4; t(269) = 2.0, p < .05) or the control condition (M_{hedonic} = 2.95, SD = 1.6; $M_{control} = 2.51$, SD = 1.5; t(269) = 2.0, p <.05). There was no difference in self-attributions between the utilitarian reference product condition and the control condition ($M_{\text{utilitarian}} = 2.49$, SD = 1.4; $M_{\text{control}} = 2.51$, SD =1.5; t(269) = -.061, p > .9).

In Experiment 1a, participants reported that choosing not to donate would lead to more negative self-attributions when the donation appeal referenced a hedonic product than in the other conditions. This pattern of results is consistent with the notion that the self-attributions people make based on their choices can vary as a function of the comparative context. Furthermore, these findings lend support to our prediction that merely referencing a hedonic product in a

Figure 1

EXPERIMENT 1A RESULTS: SELF-SIGNAL OF SELFISHNESS
FROM CHOICE NOT TO DONATE AS A FUNCTION OF
REFERENCE PRODUCT



donation appeal can affect people's self-signaling utility from their choice to donate.

EXPERIMENT 1B: THE EFFECT OF REFERENCING A HEDONIC PRODUCT ON THE SELF-SIGNAL, THE VALUE OF MONEY, AND PERCEPTIONS OF NEED

We designed Experiment 1b to provide a conceptual replication of the results of Experiment 1a and to test two other potential consequences of reference products. Hedonic purchases are often characterized as indulgent and discretionary (Dhar and Wertenbroch 2000). Therefore, it is possible that referencing a hedonic product during the donation appeal could cause consumers to perceive the requested donation amount as more dispensable, and thus they would be more likely to donate. Thus, Experiment 1b tests whether people believe the dollar amount requested in the donation is less valuable when the same dollar amount is associated with a hedonic product. Another possibility is that a reference to a hedonic product during a charitable appeal could generate a contrast effect (Schwarz and Bless 1992), such that people perceive the charity as needier or more worthwhile when contrasted with a hedonic alternative to donating. Experiment 1b tests for this explanation directly.

Method

Experiment 1b used a 3×3 between-subjects design, with reference product as the manipulated factor (hedonic vs. utilitarian vs. control) and the dependent measure (selfsignal ratings vs. subjective value of \$2 vs. perceptions of need) as measured variables. One hundred sixty-seven people (91 men; $M_{age} = 34.36$ years, SD = 12.5) were recruited from a U.S.-based online pool. All participants were shown a charitable appeal asking for a \$2 donation to UNICEF's Fund for the Children of Sudan's Darfur. After reading the charitable appeal, participants in the hedonic reference product condition read, "Note, \$2 is about how much it costs to download a top-rated television show off iTunes, such as an episode of Entourage." Participants in the utilitarian reference product condition read, "Note, \$2 is about how much it costs to download a top-rated documentary off iTunes, such as an episode of Into the Universe with Stephen Hawking."

¹We set sample sizes for this experiment and all other experiments conducted online with the goal of having between 50 and 100 participants per experimental cell.

Next, participants were randomly assigned to answer one of three sets of dependent measures. One-third of the participants reported how they would feel about themselves if they chose not to donate, using the same measures as in Experiment 1a. One-third of the participants completed a subjective valuation of money task, which required them to evaluate ten items and indicate how many of each item could be purchased with \$2. Items included gumballs, paper clips, pieces of Skittles candy, and others (Alter and Oppenheimer 2008). The final one-third of participants completed two items designed to measure perceptions of the charity's level of need. They responded to two statements ("The children of Sudan's Darfur are very needy" and "UNICEF is an efficient and worthwhile charity") using seven-point scales (1 = "strongly disagree," and 7 = "strongly agree").

Results and Discussion

A self-signaling account predicts that participants will perceive the choice not to donate as a greater signal of self-ishness when the appeal references a hedonic product than when other products or no products are referenced. In contrast, perceptions of the value of the requested amount or the perceived neediness of the charity should not vary as a function of the reference product. Because participants were randomly assigned to answer only one of the three sets of dependent measures, we present results for each measure independently in the next section.

Self-signaling. As in Experiment 1a, we reverse-scored participants' self-attribution ratings and then averaged them across the four dependent measures (α = .96) to form a composite measure of perceived selfishness that we submitted to a single-factor ANOVA (F(2, 49) = 5.6, p < .01). In line with our predictions and replicating the results of Experiment 1a, planned contrasts revealed that choosing not to donate signaled more negative information about the self when a hedonic product was referenced than when a utilitarian product was referenced (M_{hedonic} = 4.2, SD = 1.2; M_{utilitarian} = 2.7, SD = .77; t(47) = 3.03, p < .01) or in the control condition when no product was referenced (M_{hedonic} = 4.2, SD = 1.2; M_{control} = 2.9, SD = 1.3; t(47) = 3.04, p < .01). There was no difference in self-attributions between the utilitarian reference product condition and the control condition (p > .5).

Perceived value of the requested amount. To test whether the reference product affected the perceived value of the requested amount, we transformed participants' estimates of how many of each item could be purchased with \$2 into standardized z-scores. Standardized estimates formed a reliable scale ($\alpha = .80$), so we averaged them to form an aggregate measure of participants' subjective value of \$2 (Alter and Oppenheimer 2008). A single-factor ANOVA revealed that the reference product manipulation had no effect on the subjective value of \$2 (F(2, 61) = .38, p >.65). Planned contrasts revealed no difference between any conditions ($M_{hedonic} = -.03$, SD = .37; $M_{utilitarian} = .11$, SD =.93; $M_{control} = -.05$, SD = .45; all ps > .5). These results suggest that referencing an equally priced hedonic product during a charitable appeal does not significantly alter the perceived value of the requested amount, as compared with the other conditions.

Perceptions of need. A single-factor ANOVA revealed that the reference product manipulation had no effect on participants' perceptions of the charity's need ($M_{hedonic}$ =

6.0, SD = 1.2; $M_{\text{utilitarian}} = 5.95$, SD = 1.1; $M_{\text{control}} = 5.6$, SD = 1.0; F(2, 50) = .75, p > .47) and no effect on how worthwhile they rated the charity ($M_{\text{hedonic}} = 5.3$, SD = 1.2; $M_{\text{utilitarian}} = 5.6$, SD = 1.1; $M_{\text{control}} = 5.12$, SD = 1.2; F(2, 50) = .83, p > .44). Thus, an alternative account suggesting an increased perception of the charity's level of need in the context of a hedonic reference product receives no support. Instead, the overall pattern of results is consistent with the notion that a hedonic reference product primarily affects the self-signaling utility from the act of donating.

Thus far, our experiments have tested the effect of reference products on participants' self-attributions using hypothetical donation scenarios. The next set of experiments investigates whether the observed effect of a hedonic reference product on self-signals has implications for consequential donation choices involving real money and time. We predict that compared with the other conditions, donation rates will increase when a hedonic product is referenced because of an increase in the self-signaling utility from the choice to donate.

EXPERIMENT 2A: THE EFFECT OF REFERENCING A HEDONIC PRODUCT IN A DONATION APPEAL ON REAL DONATIONS OF MONEY

Method

Experiment 2a used a between-subjects design, with the reference product (hedonic vs. utilitarian vs. control) as the manipulated factor. Participants were 55 undergraduate students who completed a series of unrelated studies as part of a laboratory session in exchange for US\$6.2 Before beginning the experiment, all participants received their compensation inside an unsealed envelope placed at their workstation. The envelope was discreetly marked with a code that corresponded to their experimental condition.

At the conclusion of the experimental session, all participants read a charitable appeal asking for a \$1 donation to UNICEF. Participants in the hedonic reference product condition then read, "One dollar is the cost of downloading one top-ten song off of iTunes, such as the current #1 hit 'Hallelujah' by Justin Timberlake." Those in the utilitarian reference product condition read, "One dollar is the cost of downloading one top-ten podcast lecture from iTunes U, such as MIT Professor of Physics Walter Lewin's lecture, 'Electricity and Magnetism.'"3 Participants in the control condition received no additional information. Participants who wanted to donate were instructed to leave \$1 in the envelope at their workstation. If they chose not to donate, they were instructed to simply leave the empty envelope at their workstation. The dependent measure was participants' decision to donate. Because these donations were anonymous, we collected no demographic data.

Results and Discussion

In line with our prediction, referencing a hedonic product in the donation appeal significantly increased donation rates above those in both the control condition ($P_{hedonic} = 88\%$,

²We determined sample sizes for the experiments conducted in a laboratory setting on the basis of the total number of participants who attended the laboratory session on the day the experiment was conducted.

³The hedonic and utilitarian reference products were the top-ranked downloads from iTunes and iTunes U, respectively, the week of the experiment.

 $P_{control} = 47\%$; $\chi^2 = 7.0$, p < .001) and the utilitarian reference product condition ($P_{hedonic} = 88\%$, $P_{utilitarian} = 57\%$; $\chi^2 = 4.7$, p < .05). Donation rates did not differ reliably across the utilitarian reference product condition and the control condition (p > .5; see Table 1).

EXPERIMENT 2B: THE EFFECT OF REFERENCING A HEDONIC PRODUCT IN A DONATION APPEAL ON REAL DONATIONS OF TIME

To extend the generalizability of our results, Experiment 2b tests whether the effect of reference products on donations we observed in Experiment 2a extends to donations of time. Furthermore, this experiment employs a different participant population (a national panel).

Method

The experiment used a three-group between-subjects design, with the reference product (hedonic vs. utilitarian vs. control) as the manipulated factor. One hundred fortythree participants (53 men; $M_{age} = 38.38$ years, SD = 13.1) were recruited from a U.S.-based online pool. After completing an unrelated study, all participants received the following actual charitable appeal: "Please consider donating two hours of your time to UNICEF's Emergency Relief Fund for the Children of Sudan's Darfur. During this time you will be asked to help with UNICEF's annual fund raising drive. You will be able to volunteer from home, working on a project from your computer." Participants in the hedonic product condition then read, "Two hours is how long it takes to watch the season finale of MTV's Jersev Shore" (a popular reality show). Those in the utilitarian product condition read, "Two hours is how long it takes to watch the season premiere of *House*" (a popular medical drama).⁴ Participants in the control condition received no additional information. The dependent measure was participants' choice to donate their time.

Results and Discussion

The results of Experiment 2b replicated the previous results in the context of time donations. Participants were more likely to donate their time when the donation appeal referenced a hedonic product than in either the utilitarian reference product condition ($P_{\text{hedonic}} = 30.4\%$, $P_{\text{utilitarian}} = 13.7\%$; $\chi^2 = 4.2$, p < .05) or the control condition ($P_{\text{hedonic}} = 30.4\%$, $P_{\text{control}} = 11.8\%$; $\chi^2 = 4.1$, p < .04). Donation rates did not differ reliably across the utilitarian reference product condition and the control condition (p > .7; see Table 1).

Thus far, we have demonstrated that referencing a hedonic product during the donation appeal (1) increases the negative self-attributions associated with not donating and (2) increases donation rates for consequential choices. Furthermore, we observe that the hedonic reference product does not influence the subjective valuation of the requested amount, nor does it affect perceptions of the charity's need. Instead, the results from Experiments 1 and 2 are consistent with our theoretical account that referencing a hedonic

Table 1

REAL DONATION RATES AS A FUNCTION OF REFERENCE
PRODUCTS FOR EXPERIMENTS 2A, 2B, AND 5

| Condition | Experiment 2a | Experiment 2b | Experiment 5 |
|------------------|---------------|---------------|--------------|
| Control | 47%** | 12%* | _ |
| Utilitarian | 57%* | 14%* | 39%** |
| Hedonic | 88% | 30% | 75% |
| Donation request | \$1 | 2 hours | \$2 |

^{*}Denotes p < .05 when compared with the hedonic reference product condition.

product increases donation rates because the reference product increases the negative self-signal associated with not donating. In Experiment 3, we directly investigate our proposed theoretical framework. We show that the reference product affects donation interest because when the product is hedonic, the choice not to donate signals more negative information about the self. This shift in self-attributions mediates interest in donating. Experiment 3 also addresses a potential alternative account for the observed results. Although the hedonic and utilitarian products used in the previous experiments were equally priced and selected to be equally appealing, it is possible that they varied systematically on a dimension other than their hedonic versus utilitarian nature. To directly control for this possibility, all participants in Experiment 3 received a charitable appeal that references the same product; however, we manipulate the framing of the product (as hedonic vs. utilitarian) between participants (Khan and Dhar 2010).

EXPERIMENT 3: THE DIFFERENTIAL EFFECT OF A HEDONIC- VERSUS UTILITARIAN-FRAMED REFERENCE PRODUCT ON SELF-SIGNAL AND DONATION INTEREST

Method

Experiment 3 used a two-group between-subjects design, with the reference product framing (hedonic vs. utilitarian) as the manipulated factor. Three hundred twelve participants (125 men; $M_{age} = 33.03 \text{ years}$, SD = 12.5) were recruited from a U.S.-based online pool. All participants read a charitable appeal asking for a US\$10 donation to UNICEF. After reading the charitable appeal, participants in the hedonic-framed reference product condition read, "Remember, \$10 is about the cost of a hand blender, which is great for making exotic cocktail drinks and is a good tool for a luxurious lifestyle," and saw an image of a hand blender. Participants in the utilitarian-framed reference product condition read, "Remember, \$10 is about the cost of a hand blender, which is great for making healthy shakes and is a useful tool for a healthy lifestyle," and saw the identical image of a hand blender. Participants were then asked to indicate how interested they were in donating to UNICEF's Fund for the Children of Sudan's Darfur using an unnumbered slider bar scale, anchored by 0 ("not at all interested in donating") and 100 ("very interested in donating"). Next, they reported how they would feel about themselves if they had chosen not to donate, using self-signal measures identical to those in Experiments 1a and 1b. Finally, participants completed a manipulation check, in

 $^{^4}$ A pretest using a separate sample drawn from the same population confirmed that people perceive *Jersey Shore* (a popular reality show) as more hedonic (indulgent) than *House* (a medical drama) (scale: 1 = "not at all indulgent," and 7 = "very indulgent"; $M_{JS} = 5.52$, SE = .09; $M_{H} = 4.93$, SE = .08; p < .001). We selected these shows because both were top-ranked shows during the time frame of this experiment.

^{**}Denotes p < .01 when compared with the hedonic reference product condition.

which they rated the hedonic (vs. utilitarian) nature of the reference product they saw by indicating the extent to which the product was "fun," "useful" (reversed), and "practical" (reversed), on a seven-point scale (1 = "not at all," and 7 = "very much").

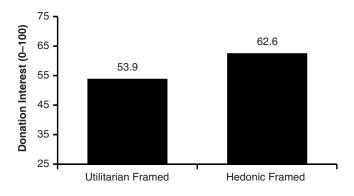
Because the framing manipulation used in this experiment relied entirely on participants reading the text description of the blender, a priori we expected that those who failed to read the experimental text and instructions would not perceive any differences in the hedonic versus utilitarian nature of the blender and thus would not be affected by the manipulation. To account for this, we included an instrumental manipulation check (IMC; Oppenheimer, Meyvis, and Davidenko 2009), which allowed us to identify participants who did not read experimental instructions. After the main experiment, participants continued to a separate screen, which contained the following text: "For this study, and for most of the research we conduct, it is very important for us to know whether you tend to read the instructions you are given. If you are reading these instructions, please just skip the following question and proceed to the next page." Below that paragraph, this question appeared: "On average, how many movies do you see in the theater per month?" Participants could select a number between 0 and 6 from a drop-down menu, or, as the instructions indicated, could click on a button to proceed to the next page. Two hundred forty-four participants (78% of the original sample) complied with the instructions and clicked to proceed to the next screen without choosing a number. Sixty-eight participants chose a number from the drop-down menu and thus were categorized as failing the IMC, in line with Oppenheimer, Meyvis, and Davidenko's (2009) procedure. Thus, our primary analysis included only participants who passed the IMC; however, we also report the results for the full sample.

Results and Discussion

In line with our prediction, donation interest was significantly higher when the hand blender was framed as hedonic than when the same hand blender was framed as utilitarian ($M_{hedonic} = 62.63$, SD = 31.1; $M_{utilitarian} = 53.83$, SD = 33.6; F(1,241) = 4.49, p = .035; see Figure 2). The results were similar when we included participants who failed the IMC in the analysis ($M_{hedonic} = 62.60$, SD = 30.9; $M_{utilitarian} = 56.48$, SD = 32.4; F(1,309) = 4.49, p = .089).

Our main proposition is that when people perceive a reference product as a hedonic alternative to donating, their self-attributions from choosing not to donate are more negative than when the reference product is utilitarian and that this shift in self-signal mediates the effect of the reference product on donation likelihood. We test these relationships and find evidence consistent with our hypothesis. First, participants rated the hedonic-framed blender as more hedonic than the utilitarian-framed blender ($\beta = .27$, t = 4.38, p < .001). Second, the more participants perceived the blender as hedonic, the more they believed that the choice not to donate signaled negative self-attributions ($\beta = .25$, t = 2.14, p = .034). Finally, the more negative the self-signal, the more likely participants were to donate ($\beta = 5.12$, t = 4.57, p < .001).

Figure 2
EXPERIMENT 3 RESULTS: INTEREST IN DONATING AS A FUNCTION OF REFERENCE PRODUCT FRAMING



.001). To test the significance of the process path, we then conducted a serial mediation analysis (Hayes 2009). The overall serial mediation path was significant ($\beta = .36, 95\%$ confidence interval [CI] [.02, 1.04]). Note that the product rating measure did not mediate the effect of framing on donation interest (A \rightarrow B \rightarrow D), nor was the reverse mediation path $(A \rightarrow C \rightarrow B \rightarrow D)$ significant. The serial mediation path also remained significant at conventional levels when we retained all participants, including those who failed the IMC, in the analysis ($\beta = .22, 95\%$ CI [.02, .72]). Therefore, the mediation analysis provides support for our proposed process model: Referencing a hedonic product (or a hedonic-framed product) increases donation likelihood because the perceived hedonic nature of the product increases the negative self-signal associated with choosing not to donate.

In summary, the results of the previous experiments offer converging evidence of the effect of hedonic reference products on giving and lend support to the proposed selfsignaling process account. Thus, in Experiments 4 and 5, we explore issues related to the managerial relevance and potential applicability of these findings. In the previous experiments, we demonstrated that including a hedonic reference product in the donation appeal increased the negative self-attributions related to not donating, thereby increasing donations. However, it is important to note that including a hedonic reference product in a donation appeal is a relatively subtle, indirect way to associate negative self-attributions with not donating. Therefore, it is possible that more direct interventions, which explicitly connect the act of not donating with selfishness, could lead to even greater donation rates. Conversely, the hedonic reference product may be effective in increasing donation rates in part because this subtle approach is not perceived as a marketing tactic designed to manipulate consumers and therefore does not arouse the resistance and/or reactance that could follow from a direct approach (Friestad and Wright 1994; Williams, Fitzsimons, and Block 2004). If so, the more direct approach of explicitly connecting the choice not to donate with selfishness may not increase, and may even decrease, donation interest. Experiment 4 investigates this question by examining how a donation appeal that directly highlights the negative personal traits associated with not donating affects

⁵To account for variance in the effectiveness of our hedonic- versus utilitarian-framed manipulation, we included participant ratings of the hedonic/utilitarian nature of the product into the mediation model, as described.

donation interest, as compared with a donation appeal that references a hedonic product and a control condition.

EXPERIMENT 4: THE EFFECT OF HIGHLIGHTING EXPLICIT NEGATIVE SELF-ATTRIBUTIONS ON DONATION INTEREST

Method

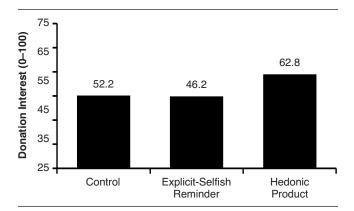
Two hundred twenty-seven participants (154 men; $M_{\rm age} = 29.8$ years, SD = 9.5) were recruited from a U.S.-based online pool. Participants were randomly assigned to one of three reference product conditions. Similar to previous experiments, participants in the hedonic reference product condition read a charitable appeal that contained a reference to an equally priced hedonic product. In contrast, in the explicit-selfish condition, participants read the same appeal and saw the same hedonic reference product but were explicitly told that choosing not to donate can be associated with selfishness. In the control condition, no product was referenced.

All participants received a charitable appeal asking for a US\$5 donation to UNICEF. Participants in the hedonic reference product condition also read, "Remember, \$5 is how much it costs to buy a pleasurable 5-minute chair massage, recommended for relaxation purposes and to make you feel great," and saw an image of a person relaxing in a massage chair. Participants in the explicit-selfish condition read, "Remember, if you do not donate, and instead spend the \$5 on a pleasurable treat for yourself, you may feel selfish and unsympathetic," and saw the same image of a person relaxing in a massage chair. Participants in the control condition received only the charitable appeal. Finally, all participants indicated how interested they were in donating to UNICEF's Fund for the Children of Sudan's Darfur using an unnumbered slider scale, anchored by 0 ("not at all interested in donating") and 100 ("very interested in donating").

Results and Discussion

We submitted donation interest to a single-factor ANOVA (F(2, 224) = 5.09, p < .01; see Figure 3). In replication of the previous results, planned contrasts revealed that participants in the hedonic reference product condition were more interested in donating than those in the control condition $(M_{\text{hedonic}} = 62.8, \text{SD} = 31.3; M_{\text{control}} = 52.2, \text{SD} = 33.2;$

Figure 3
EXPERIMENT 4 RESULTS: INTEREST IN DONATING AS A FUNCTION OF REFERENCE PRODUCT CONDITION



t(224) = 2.03, p < .05) or the explicit-selfish condition $(M_{hedonic} = 62.8, SD = 31.3; M_{explicit} = 46.15, SD = 32.9;$ t(224) = 3.14, p < .01). This pattern indicates that though the negative self-attributions activated by a hedonic reference product increase donation interest, an explicit reminder about the association between not donating and negative personal traits (e.g., selfishness) does not have the same effect. In addition, donation interest was directionally lower in the explicit-selfish condition than in the control condition ($M_{\text{explicit}} = 46.15$, SD = 32.9; $M_{\text{control}} = 52.2$, SD =33.2; t(224) = 3.14, p = .26), though this difference was not statistically significant. Prior research indicates that when people perceive a marketing tactic as an intentional effort to persuade, this can activate their persuasion knowledge and trigger coping mechanisms (Friestad and Wright 1994; Williams, Fitzsimons, and Block 2004), which may lead to reduced levels of compliance with the persuasion attempt. The results of Experiment 4 are consistent with the notion that an appeal that only references a hedonic product may be less likely to be perceived as a persuasion attempt than an appeal that explicitly connects not donating with negative personal traits. Note also that people may perceive the reference product-only appeal as a persuasion attempt intended to influence price perceptions, not self-attributions about donating, and therefore the appeal may be less likely to trigger persuasion knowledge for this reason. In either case, including a hedonic reference product in a donation appeal is more effective for increasing donation interest than the more direct strategy of explicitly connecting not donating with negative personal traits.

EXPERIMENT 5: FIELD EXPERIMENT TESTING THE EFFECT OF REFERENCING A HEDONIC PRODUCT IN A DONATION APPEAL

Thus far, we have obtained results using both real and hypothetical choices made in an experimental setting. Although the use of consequential choices improves the external validity of the findings, we designed Experiment 5 to investigate whether the observed effect of a reference product replicates when people are asked to donate their own money in a nonlaboratory setting in which donations are commonly solicited. To address this, we conducted a field experiment at a university in a location where student organizations commonly set up tables during the lunch hour to solicit donations for charitable causes. Student supporters of a well-known charitable organization, who were blind to the hypothesis, conducted the experiment, and students' personal funds were solicited as donations.

Method

This field experiment employed a two-group betweensubjects design, with the reference product (hedonic vs. utilitarian) as the manipulated factor. A table with posters containing information about a charity, Doctors Without Borders, was set up in the student union. Sixty-one students passing by the table were approached and handed envelopes that were preprinted with the donation request and the reference product manipulation.⁶ The reference product manipu-

⁶The sample in this experiment consisted of all students who were approached by members of the student organization during lunch on the day of the experiment.

lation was printed on the envelope to ensure that participants were not aware of the experimental manipulation before being approached. Furthermore, this technique allowed participants in both conditions to be recruited simultaneously, while minimizing concerns that participants would become aware of other experimental conditions. After receiving the envelope, participants were left alone to make their donation decision. To minimize experimenter intervention, we did not collect demographic information.

In the hedonic reference product condition, the message on the envelope read, "Please donate \$2 to Doctors Without Borders. For reference, this is about the price of a [popular local] cookie." In the utilitarian reference product condition, the envelope read, "Please donate \$2 to Doctors Without Borders. For reference, this is about the price of a bar of soap." To minimize self-presentation or social-signaling considerations, participants were instructed that if they chose to donate, they should place their donation in the envelope and then insert the envelope into a collection box on the table. If they chose not to donate, they were instructed to insert the empty envelope into a collection box on the table. All participants returned an envelope. The dependent measure was whether they chose to insert their own money into the envelope.

Results and Discussion

We compared the percentage of people who made a donation with the percentage of those who donated nothing (returned an empty envelope) across the two conditions. We found that participants exposed to the hedonic reference product were significantly more likely to make a donation than those in the utilitarian reference product condition ($P_{hedonic} = 75\%$, $P_{utilitarian} = 39\%$; $\chi^2 = 7.8$, p < .01; see Table 1). Thus, the pattern of results found in Experiments 2a and 2b was replicated in this more naturalistic setting.

GENERAL DISCUSSION

Most research on decision making has considered consumer preferences through the lens of utility from consumption. However, consumers can also derive utility from the information their choices signal to themselves. As a consequence, consumer choice can reflect utility from consumption, utility from signaling, or a combination of the two (Bodner and Prelec 2003). The current article builds on this framework to examine whether the choice context can affect the self-signaling utility associated with the choice to donate to charity and, through this process, affect donation rates. Across seven experiments, we find that referencing a hedonic product in a donation appeal increases consumers' likelihood of donating by affecting the self-signaling utility from donating. Specifically, we find that participants believe that the choice not to donate signals more negative information about the self when the donation appeal references a hedonic product (Experiments 1a, 1b, and 3), which leads to an increase in actual donation rates for money (Experiments 2a and 5) and time (Experiment 2b), than when a utilitarian product is referenced or when no product is referenced. In support of our proposed process, we show that negative self-attributions signaled by the decision not to donate mediate the effect of the reference product on donation interest (Experiment 3). We conclude by testing an important real-world boundary condition (Experiment 4) and by demonstrating the ecological validity of our results by replicating the effect of reference products on donation in a field experiment involving real donations of money (Experiment 5).

In addition to providing evidence for our predicted effect and proposed process, the data address several possible alternative explanations for the results. In Experiment 1b, we considered an alternative account based on the premise that referencing a hedonic product during a donation would generate a contrast effect (Schwarz and Bless 1992), such that people would perceive charities as needier and/or more worthwhile when viewed in the context of a hedonic product. Experiment 1b tested for this effect but did not find support for it. Experiment 1b further shows that the reference to a hedonic product does not reduce the perceived value of the requested donation amount. In other words, the requested amount (e.g., \$2) does not seem like "less money" when consumers are reminded of a hedonic product of equal cost. Together with the data supporting the role of self-signaling in the decision to donate, the current set of experiments provides strong support for our theoretical account.

IMPLICATIONS, LIMITATIONS, AND FUTURE RESEARCH

Our findings contribute to the literature on prosocial behavior by demonstrating the consequences of self-signaling motivations on actual donation decisions. Thus far, empirical investigations into image-signaling motives for prosocial behavior have emphasized signaling to others (i.e., social signaling) as an explanation for giving behavior (Ariely, Bracha, and Meier 2009; Karlan and McConnell 2012). In this research, we demonstrate that signaling motives can increase donation rates even when the decisions are anonymous and unobservable. These findings extend existing work on signaling motives in prosocial decision making by showing that the self-signal that accompanies a donation decision can shift the total utility derived from donating and thus can affect the likelihood of donation.

This research also contributes to the emerging literature on the role of self-signaling in consumer choice. To date, research on self-signaling has focused on demonstrating that self-signaling occurs and has implications for choice. For example, Gneezy et al. (2012) find that consumers are less likely to purchase an item when the price is unspecified (e.g., "pay-what-you-want") than when the price is fixed and low because they are motivated to avoid the negative self-signal associated with choosing to pay a lower-thanacceptable price. The current research builds on these findings by holding the choice (to donate or not) constant and testing whether self-signaling utility can be influenced through the provision of reference options. We show that reference products that are not part of the choice set can be effective in altering the self-attributions associated with a choice. Furthermore, we find that the hedonic or utilitarian nature of the product is sufficient to change the self-signal associated with a choice (here, the choice not to donate). Future research could investigate whether additional aspects of the choice context or the choice experience might likewise alter the self-signal from choice. For example, opt-in decisions may be considered more diagnostic of a person's traits and therefore send stronger self-signals than status quo or default choices.

Our findings also contribute to the more general literature on consumer decision making in two ways. First, this research extends the understanding of how reference products can influence choice. Reference products are often used in advertisements for consumer goods as well as in charitable appeals. However, research on reference products has mostly examined how these unrelated products influence perceptions of value, by affecting the reference prices consumers use to construct a standard of comparison (Adaval and Monroe 2002; Dholakia and Simonson 2005; Nunes and Boatwright 2004). In contrast, the current research uses similarly priced reference products and finds that though perceptions of cost do not change (Experiment 2a), the selfsignal from the choice does. This finding allows for a more nuanced understanding of how reference products affect choices, by showing not only that the price of a reference product can affect cost perceptions, and thus transaction utility, but also that the nature of the product itself (herein hedonic vs. utilitarian) can have consequential choice implications through self-signaling utility.

Second, these findings extend the understanding of how highlighting opportunity costs can affect choice. To date, research has surmised that reminders of forsaken outside options (opportunity costs) decrease choice likelihood. For example, Frederick et al. (2009) demonstrate that consumers are less likely to choose a \$1,000 stereo over a \$700 stereo when reminded of an attractive alternative use of their \$300 (\$300 of CDs). In contrast, we demonstrate an instance in which reminding consumers of attractive alternative uses for their money actually increases choice of the focal option (i.e., the option to donate). This occurs because the nature of the outside alternative affects the self-attributions signaled by one's choice and, thus, the self-signaling utility. This underlying shift in self-signaling utility then affects total utility and, thus, actual choices. Future researchers could attempt to integrate these findings to provide a broader framework for how outside alternatives affect different components of consumers' total utility and, through this process, influence preferences.

One limitation of the research is that we consistently requested small amounts of money for donations in our experiments. It is possible that larger amounts could cause people to engage in additional processing (Goldsmith and Amir 2010), which might affect our observed pattern of results. We conducted two additional experiments to test the amount of the charitable request as a possible boundary condition. In the first experiment, participants rated their interest in making a larger charitable donation (\$50 to UNICEF) when either a hedonic reference product was presented (\$50 is the cost of a silver bookmark from Tiffany & Co.) or no reference product was mentioned. Again, we observed that when a hedonic reference product was presented, donation interest increased significantly above the control condition (scale: 1 = "not at all interested in donating," and 9 = "extremely interested in donating"; $M_{hedonic}$ = 7.0, SD = 1.86; $M_{control}$ = 5.9, SD = 1.74; F(1, 53) = 4.41, p = .04). We replicated these results in a second experiment that asked participants about their interest in donating \$75 to a hurricane relief fund (hedonic reference product: \$75 massage at a spa; $M_{hedonic} = 6.9$, SD = 1.88; $M_{control} = 3.6$,

SD = 2.65; F(1, 27) = 15.04, p < .001). Although these experiments were hypothetical, the preliminary data suggest that the pattern of effects observed in our experiments may hold even when larger amounts of money are requested, though the base rates for donation are likely to be lower. Future research might also determine whether adding a reference product to a charitable appeal has implications for the total amount donated, in addition to whether a donation is made.

Other limitations of this research specify promising areas for future inquiry. For example, because our research centered on demonstrating the role of self-signaling in prosocial decision making, we made every attempt to ensure that donation decisions were private and anonymous. However, in many real-world situations, donation decisions are observable and thus could be subject to both social- and self-signaling motives. To date, scant research has explored how social- and self-signaling utility interact to affect choice. For example, the two motives might have an additive effect on behavior, such that any signaling benefit is amplified when there is the potential for additional signaling rewards. Conversely, some social-signaling benefits may inhibit self-signaling benefits, through an overjustification or crowding-out mechanism (Deci, Koestner, and Ryan 1999; Gneezy and Rustichini 2000). For example, if a person gains a social-signaling benefit from a behavior (e.g., a reputational reward), it is possible that the same behavior will not confer any additional utility from the signal the behavior transmits to the self. Another open question is how behavior based on self-signaling concerns affects downstream self-perceptions and judgments by outside observers. For example, while we show that concerns about negative self-attributions influence donation choice, we did not test whether the reference product manipulation affected how people judged themselves after their donation decision (e.g., as more vs. less altruistic). In addition, this research does not address if or how the presence of a reference product might affect how an outside observer would judge someone else's personal traits on the basis of their donation decision. Future research might explore these issues and the general interplay of social- and self-signaling utility on people's choices more directly.

An intriguing aspect of our research is that we consistently observed that the desire to avoid the negative self-signal from choosing *not* to give motivated consumers' donation choices. This emphasis on avoiding negative signaling utility is consistent with recent work suggesting that people often choose an outcome that allows them to avoid sending negative signals over an outcome that maximizes personal gains (Dana, Cain, and Dawes 2006) or hedonic pleasure (Dhar and Wertenbroch 2012). Having demonstrated that people are motivated to avoid signaling negative information, we might assume that they are likewise motivated to pursue opportunities to signal positive information. Although we did not test this assumption in the current research, recent research in the domain of self-signaling implies that it may not always be the case. Gneezy et al. (2012) find that when self-signaling motives are salient, the motive to avoid a negative self-signal is often stronger than the motive to pursue a positive self-signal. Future research might directly contrast consumers' utility from avoiding negative self-signals with the utility from accruing positive self-signals to explore this potential asymmetry.

The managerial implications of our findings are relatively straightforward. At a strategic level, understanding the factors that affect consumers' likelihood of making a donation can help charitable organizations increase donation rates. Although there are other ways to increase donation revenue, such as increasing awareness of the charity through advertising, these may be expensive and/or require a long time horizon to be effective. Our findings show that donation rates can be immediately and significantly affected by small changes to existing charitable appeals. Specifically, we show that real donations of time and money increase when the appeal references a hedonic product, which suggests that nonprofit organizations and others that aim to raise money or promote volunteerism for prosocial causes can consider referencing a hedonic product in their appeals as a means to increase donation and participation rates. For example, consider the following appeal from CARE: "By giving a dollar a day—less than the cost of a cup of coffee or Sunday newspaper—you can help alleviate suffering around the world." Some consumers may regard a cup of coffee and the Sunday paper as necessary, utilitarian expenditures. The current findings suggest that CARE's appeal could be improved with a subtle modification: "By giving a dollar a day—less than the cost of an indulgent Frappuccino—you can help alleviate suffering around the world." However, managers contemplating the use of a reference product as a means to increase charitable donations should be aware that the product selected will play an important role in the effectiveness of the manipulation. If consumers do not attend to the reference product, or do not perceive it as sufficiently hedonic, the results may be unlikely to replicate (Stroebe and Strack 2014). Furthermore, even if the reference product is noticed and considered hedonic, this tactic may not have the desired effect if consumers perceive its usage as deliberately manipulative (Experiment 4).

In summary, these findings shed additional light on the roles of context and self-signaling in the domain of charitable giving. Across seven experiments, we demonstrate that when a hedonic reference product is included in a donation appeal, people believe that the choice not to donate signals more negative personal traits, which in turn motivates donation behavior. In doing so, this research suggests several potential applications for donation requests and beyond.

REFERENCES

- Adaval, Rashmi and Kent B. Monroe (2002), "Automatic Construction and Use of Contextual Information for Product and Price Evaluations," *Journal of Consumer Research*, 28 (March), 572–88.
- Alter, Adam L. and Daniel M. Oppenheimer (2008), "Easy on the Mind, Easy on the Wallet: The Roles of Familiarity and Processing Fluency in Valuation Judgments," *Psychonomic Bulletin & Review*, 15 (5), 985–90.
- Andreoni, James and Ragan Petrie (2004), "Public Goods Experiments Without Confidentiality: A Glimpse into Fund-Raising," *Journal of Public Economics*, 88 (July), 1605–23.

- Anik, Lalin, Lara B. Aknin, Michael I. Norton, and Elizabeth W. Dunn (2009), "Feeling Good About Giving: The Benefits (and Costs) of Self-Interested Charitable Behavior," in *The Science of Giving: Experimental Approaches to the Study of Charity*, Daniel M. Oppenheimer and Christopher Y. Olivola, eds. New York: Psychology Press, 3–14.
- Ariely, Dan, Anat Bracha, and Stephan Meier (2009), "Doing Good or Doing Well? Image Motivation and Monetary Incentives in Behaving Prosocially," *American Economic Review*, 99 (1), 544–55.
- and Michael I. Norton (2009), "Conceptual Consumption," Annual Review of Psychology, 60, 475–99.
- Batson, Daniel C. and Jay S. Coke (1981), "Empathy: A Source of Altruistic Motivation for Helping?" in *Altruism and Helping Behavior: Social, Personality, and Developmental Perspectives*, J. Philippe Rushton and Richard M. Sorrentino, eds. Hillsdale, NJ: Lawrence Erlbaum Associates, 167–87.
- —— and Laura L. Shaw (1991), "Evidence for Altruism: Toward a Pluralism of Prosocial Motives," *Psychological Inquiry*, 2 (2), 107–122.
- Bem, Daryl (1972), "Self-Perception Theory," in Advances in Experimental Social Psychology, Vol. 6, L. Berkowitz, ed. New York: Academic Press, 1–62.
- Benabou, Roland and Jean Tirole (2006), "Incentives and Prosocial Behavior," *American Economic Review*, 96 (5), 1652–78.
- —— and —— (2011), "Identity, Morals, and Taboos: Beliefs as Assets," *Quarterly Journal of Economics*, 126 (2), 805–855.
- Berger, Jonah and Chip Heath (2007), "Where Consumers Diverge from Others: Identity-Signaling and Project Domains," *Journal of Consumer Research*, 34 (2), 121–34.
- Bodner, Ronit and Drazen Prelec (1995), "The Diagnostic Value of Actions and the Emergence of Personal Rules in a Self-Signaling Model," in *Self-Knowledge and the Diagnostic Value of One's Actions*, Ronit Bodner, ed., doctoral dissertation, Sloan School of Management, Massachusetts Institute of Technology, 53–67.
- and (2003), "Self-Signaling in a Neo-Calvinist Model of Everyday Decision Making," in *Psychology of Economic Decisions*, Isabelle Brocas and Juan Carillo, eds. New York: Oxford University Press, 105–126.
- Buraschi, Andrea and Francesca Cornelli (2002), "Donations," CEPR Discussion Papers 3488.
- Dana, Jason, Daylian M. Cain, and Robyn M. Dawes (2006), "What You Don't Know Won't Hurt Me: Costly (but Quiet) Exit in Dictator Games," *Organizational Behavior and Human Deci*sion Processes, 100 (2), 193–201.
- Deci, Edward L., Richard Koestner, and Richard M. Ryan (1999), "A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation," *Psychological Bulletin*, 125 (6), 627–68.
- Dhar, Ravi and Klaus Wertenbroch (2000), "Consumer Choice Between Hedonic and Utilitarian Goods," *Journal of Marketing Research*, 37 (February), 60–71.
- —— and —— (2012), "Self-Signaling and the Costs and Benefits of Temptation in Consumer Choice," *Journal of Marketing Research*, 49 (February), 15–25.
- Dholakia, Utpal M. and Itamar Simonson (2005), "The Effect of Explicit Reference Points on Consumer Choice and Online Bidding Behavior," *Marketing Science*, 24 (2), 206–217.
- Frederick, Shane, Nathan Novemsky, Jing Wang, Ravi Dhar, and Stephen Nowlis (2009), "Opportunity Cost Neglect," *Journal of Consumer Research*, 36 (4), 553–61.
- Friestad, Marian and Peter Wright (1994), "The Persuasion Knowledge Model: How People Cope with Persuasion Attempts," *Journal of Consumer Research*, 21 (June), 1–31.
- Gneezy, Ayelet, Uri Gneezy, Gerhard Riener, and Leif D. Nelson (2012), "Pay-What-You-Want, Identity, and Self-Signaling," Proceedings of the National Academy of Sciences, 109 (19), 7236–40.

⁷See http://my.care.org/site/PageServer;jsessionid=4B09B1325492C3A A418395BFC3A06ADC.app338a?pagename=Jan_2011_Donation_Form_FAQ.

- —— and Aldo Rustichini (2000), "Pay Enough or Don't Pay at All," *Quarterly Journal of Economics*, 115 (3), 791–810.
- Goldsmith, Kelly and On Amir (2010), "Can Uncertainty Improve Promotions?" *Journal of Marketing Research*, 47 (December), 1070–1077.
- Griskevicius, Vladas, Joshua Tybur, Jill Sundie, Robert Cialdini, Geoffrey Miller, and Douglas Kendrick (2007), "Blatant Benevolence and Conspicuous Consumption: When Romantic Motives Elicit Costly Displays," *Journal of Personality and Social Psychology*, 93 (1), 85–102.
- Hayes, Andrew F. (2009), "Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millennium," *Communication Monographs*, 76 (4), 408–420.
- Hirschman, Elizabeth C. and Morris B. Holbrook (1982), "Hedonic Consumption: Emerging Concepts, Methods, and Propositions," *Journal of Marketing*, 46 (Summer), 92–101.
- Kahneman, Daniel and Dale T. Miller (1986), "Norm Theory: Comparing Reality to Its Alternatives," *Psychological Review*, 93 (2), 136–53.
- Karlan, Dean and Margaret A. McConnell (2012), "Hey Look at Me: The Effect of Giving Circles on Giving," National Bureau of Economic Research No. w17737.
- Khan, Uzma and Ravi Dhar (2006), "Licensing Effect in Consumer Choice," *Journal of Marketing Research*, 43 (May), 259–66.
- —— and —— (2010), "Price Framing Effects on Purchase of Hedonic and Utilitarian Bundles," *Journal of Marketing Research*, 47 (December), 1090–99.
- ——, ——, and Klaus Wertenbroch (2005), "A Behavioral Decision Theory Perspective on Hedonic and Utilitarian Choice," in *Inside Consumption: Frontiers of Research on Consumer Motives, Goals, and Desires*, S. Ratneshwar and David Glen Mick, eds. Abingdon, UK: Routledge, 144–65.
- Kivetz, Ran and Anat Keinan (2006), "Repenting Hyperopia: An Analysis of Self-Control Regrets," *Journal of Consumer Research*, 33 (2), 273–82.
- and Yuhuan Zheng (2006), "Determinants of Justification and Self-Control," *Journal of Experimental Psychology*, 135 (November), 572–87.
- Lacetera, Nicola and Mario Macis (2010), "Do All Material Incentives for Prosocial Activities Backfire? The Response to Cash and Non-Cash Incentives for Blood Donations," *Journal of Economic Psychology*, 31 (4), 738–48.
- Levy, Sidney J. (1959), "Symbols for Sale," *Harvard Business Review*, 37 (July–August), 117–24.

- Marsh, Herbert W. (1996), "Positive and Negative Global Self-Esteem: A Substantively Meaningful Distinction or Artifactors?" *Journal of Personality and Social Psychology*, 70 (4), 810–19.
- Mick, David Glen (1986), "Consumer Research and Semiotics: Exploring the Morphology of Signs, Symbols, and Significance," *Journal of Consumer Research*, 13 (2), 196–213.
- Nunes, Joseph C. and Peter Boatwright (2004), "Incidental Prices and Their Effect on Willingness to Pay," *Journal of Marketing Research*, 41 (November), 457–66.
- Oppenheimer, Daniel M., Tom Meyvis, and Nicolas Davidenko (2009), "Instructional Manipulation Checks: Detecting Satisficing to Increase Statistical Power," *Journal of Experimental Social Psychology*, 45 (4), 867–72.
- Schmitt, David P. and Jüri Allik (2005), "Simultaneous Administration of the Rosenberg Self-Esteem Scale in 53 Nations: Exploring the Universal and Culture-Specific Features of Global Self-Esteem," *Journal of Personality and Social Psychology*, 89 (4), 623–42.
- Schwarz, Norbert and Herbert Bless (1992), "Scandals and the Public's Trust in Politicians: Assimilation and Contrast Effects," *Personality and Social Psychology Bulletin*, 18 (5), 574–79.
- Simonson, Itamar, James R. Bettman, Thomas Kramer, and John W. Payne (2012), "Comparison Selection: An Approach to the Study of Consumer Judgment and Choice," *Journal of Consumer Psychology*, 23 (1), 137–49.
- Steinberg, Laurence (1990), "Autonomy, Conflict, and Harmony in the Family Relationship," in *At the Threshold: The Developing Adolescent*, S. Shirley Feldman and Glen R. Elliot, eds. Cambridge, MA: Harvard University Press, 255–76.
- Strahilevitz, Michal and John Myers (1998), "Donations to Charity as Purchase Incentives: How Well They Work May Depend on What You Are Trying to Sell," *Journal of Consumer Research*, 24 (4), 434–46.
- Stroebe, Wolfgang and Fritz Strack (2014), "The Alleged Crisis and the Illusion of Exact Replication," *Perspectives on Psychological Science*, 9 (1), 59–71.
- Williams, Patti, Gavan J. Fitzsimons, and Lauren G. Block (2004), "When Consumers Don't Recognize 'Benign' Intentions Questions as Persuasion Attempts," *Journal of Consumer Research*, 31 (3), 540–50.

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