

REVISITING POSITIVE AND NEGATIVE CHARITY APPEAL EFFECTIVENESS:
MODERATION EFFECT OF COLOR AND VICTIM-TYPE

BY

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REVISITING POSITIVE AND NEGATIVE CHARITY APPEAL EFFECTIVENESS:
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ABSTRACT

The purpose of my dissertation is to understand prosocial (or helping) behavior when responding to a charitable appeal. I am interested in enhancing the persuasiveness of charity appeal by considering a moderating effect of an underexplored but critical variable: a valence of charity appeal (positive features vs. negative features) with other various effects or factors uncovered. This research, despite its significance, has been underexplored in marketing.

Recent research shows that the physical warmth induced by contact with a warm object (e.g., holding a cup of hot coffee) evokes attitudes and behaviors linked to interpersonal warmth, including prosocial behavior. However, using grounded cognition literature, in the first essay, I reason that physically warm stimuli might not necessarily be required to induce perception of physical warmth, because non-haptic stimuli, such as certain colors and images of warm objects, might do the same. In five studies, I investigate the effects of various types of non-haptic stimuli on messages from charities seeking to promote prosocial behaviors. Findings of these studies indicate that non-haptic stimuli indeed can bolster the persuasiveness of charitable appeals with some contingencies.

In the second essay, I investigate how singularity or identification effects are moderated by a charity appeal-type (positive vs. negative). While most previous studies found that a single victim is more persuasive than a group of victims (singularity effect) and that an identified victim is more appealing than a non-identified victim (identification effect), the dissertation examines how those effects are moderated by the type of charity appeal because people's information processing depends on an appeal-type. I find that singularity or identification effects are line with the previous research for a negative appeal, in which empathy serves as a mediator.

However, I find that the effects disappear, and even the results differ for a positive charity appeal, when positive emotions serve as a mediator.

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ESSAY 1: USING NON-HAPTIC, PERCEPTUAL WARMTH-INDUCING STIMULI TO ENHANCE THE EFFECTIVENESS OF CHARITABLE APPEALS

INTRODUCTION

Even in the best of times, the resources of the charitable institutions are stretched to meet the needs of their clients, a situation exacerbated by the severe and prolonged economic slump. In 2010, charitable donations totaled \$209.89 billion, which represented an 11% drop from 2007 (Giving USA 2011). Increased need for charitable support for issues such as health care and disaster relief (White and Pelozo 2009), shrinking government support to charities, and severe competition means that the more than 800,000 charitable organizations in the United States (Small and Verrochi 2009) absolutely must enhance the effectiveness of their donation appeals (Reed, Aquino, and Levy 2007).

Bendapudi, Singh, and Bendapudi (1996) list only 27 marketing studies on charitable giving in a 20-year period—less than .5% of all marketing studies published in that period. They define helping behavior as that which “enhances the welfare of needy others, by providing aid or benefit, usually with little or no commensurate reward in return” (Bendapudi et al. 1996, 34); similarly, prosocial behavior refers to “acts defined by some significant segment of society as generally beneficial to other people” (Penner et al. 2005, 366). I use the terms helping behavior, prosocial behavior and donation behavior interchangeably in this paper. Since the publication of their review, only 35 additional studies related to charitable giving have appeared in major marketing journals (i.e., *Journal of Marketing*, *Journal of Marketing Research*, *Journal of Consumer Research*, *Marketing Science*, and *Journal of Public Policy & Marketing* for the period after 1996). As Small and Verochhi (2009) argue though, this topic merits more attention and theory-building.

In response, I propose a method for enhancing the effectiveness of charitable appeals. Relying on grounded cognition literature, I offer perceptions of warmth as a potential feature that might make an appeal more potent. Perceptions of warmth affect interpersonal warmth (e.g., perceiving a person as warm or cold, friendly or unfriendly, irritable or good-natured) (Williams and Bargh 2008). Furthermore, bodily states also can cause cognitive states (Barsalou et al. 2003); thus, holding a warm cup of coffee (a haptic stimulus) increases interpersonal warmth and promotes prosocial behaviors (Williams and Bargh 2008).

Asking target audiences to hold warm coffee before asking them for help is a restrictive approach not suitable for mass media campaigns. I, therefore, investigate whether it is possible to create a perception of warmth without haptic intervention but still enhance helping behavior. According to the cognitive simulation perspective (Barsalou 2008), because brain captures multimodal representations (e.g., visual, olfactory, and somatosensory) that are reactivated later as a set of concepts, any modal or amodal cue that activates the simulation will initiate the same inferential process. This perspective then, suggests that even those non-haptic stimuli that are associated with physical coldness or warmth can influence the *perceptions of warmth*, and in turn, *interpersonal warmth*. Thus, there are perhaps a plethora of non-haptic stimuli that potentially could create perception of physical warmth and coldness.

My literature search for visual stimuli that could evoke perceptions of physical coldness or warmth led me to colors. It is well-established that certain colors (e.g., orange) are perceived as warm, whereas others (e.g., blue) are perceived as cold (e.g., Fenko, Schifferstein, and Hekkert 2010). I also reason that the nature of the charitable message itself could lead to induction of physical warmth or coldness. In this essay, therefore, in a series of studies, I not only explore the impact of background colors, but also how these colors interact with the type of

message appeals to affect the success of charitable messages. I then attempt to extend this research to another class of non-haptic stimuli -- images of objects associated with coldness or warmth -- that might influence warmth perception.

These findings add to theoretical knowledge in the grounded cognition literature by demonstrating that the perception of physical and interpersonal warmth can be manipulated by use of stimuli other than the haptic ones (e.g., colors and visual images). This theoretical insight enables me to offer practical implications for nonprofit managers who cannot ensure that potential donors are touching something warm before they read an appeal. That is, I offer an alternative, more efficient manner to solicit donations that is also easy to execute.

I begin with a brief review of literature on helping behavior, cognition, warmth, color, and appeal-types. I then develop several hypotheses, which I test in five studies. Finally, I discuss the implications of the findings and suggestions for further research.

THEORETICAL BACKGROUND

Helping Behavior in Marketing Literature

Helping behaviors—including donating to charity, helping others with small tasks, or intervening in emergencies (Krebs 1982)—are a universal human value (Bendapudi et al. 1996). Research on helping behavior in marketing in recent years consists of six broad categories (see appendix 1): for-profit organization–charity collaborations, appeals to donors with specific characteristics, in-person versus group solicitations, multistage solicitation requests, appeals requiring prior manipulation, and appeals that vary on message-related factors. First, many for-

profit organizations work on social causes and promote purchase-contingent donations across their business units, brands, and categories (Arora and Henderson 2007). For this approach to succeed, it is essential to find a relevant match among the charities, the brands, and product purchase situations. Unlike typical price promotions, a donation-related product promotion creates an emotion-laden social cause association, which can be very effective for a targeted population (Henderson and Arora 2010) and build equity for the sponsoring organization (e.g., Hoeffler and Keller 2002).

Second, studies of appeals that target specific donors show that donation behavior depends on the specific characteristics of the prospective donor, including his or her moral identity (Winterich, Mittal, and Ross 2009) and gender identity (Puntoni, Sweldens, and Tavassoli 2011). Third, another targeting variable is whether the solicitations take place in person or in group settings. The presence of friends or volunteers who make requests in person can determine whether people engage in helping behaviors. In a public accountability situation, specific donation appeals are differentially effective (White and Peloza 2009); the presence of a friend also enhances donation behavior among certain persons (Kurt, Inman, and Argo 2011). Fourth, requesting donations in multiple stages also positively influences helping behavior. Thus, an initial request to donate time or money appears to prime a prosocial self-concept (Reed et al. 2007) or mindset (Liu and Aaker 2008) and leads to donation behavior. Fifth, by targeting consumers who are in a specific mood or experiencing certain emotions, nonprofits can determine reactions to subsequent solicitation messages. For example, donation behaviors vary depending on whether people feel happy or sad (Labroo and Mukhopadhyay 2009).

Sixth, the last category consists of only five papers that investigate the effectiveness of specific message-related variables. Charity appeals framed to induce people to imagine engaging

in socially helpful behaviors enhance helpful behavior (Spangenberg et al. 2003). Televised fundraising appeals that emphasize the benefits to others are more effective than appeals that focus on benefits to the self (Fisher, Vandebosch, and Antia 2008). The display of sad pictures of victims is more effective in gaining donations than the display of happy or neutral pictures (Small and Verochhi 2009). Appeals that display pictures of actual victims, rather than actors, are more effective too (Shanahan, Hopkins, and Carlson 2010). Finally, a charity appeal framed with an approach (vs. avoidance) strategy is more effective (Kemp and Kopp 2011).

This current research is part of this last stream, focused on message-related factors. I examine whether any unexplored message-related factors (e.g., color) might influence how information is processed and thereby induce helping behavior. Research in psychology suggests that information obtained from different modalities can influence action and thus potentially influence prosocial behavior.

Cognition, Interpersonal Warmth, and Physical Warmth

Warm can mean, beyond its physical, thermal definition, “bringing closer, or drawing into a union,” whereas cold “excludes or isolates” (Asch 1958, 332). These characteristics produce striking differences in first impressions of others, such that a warm personality is perceived as more sociable, humorous, good-natured, generous, popular, and humane than a cold personality (Asch 1946; Kelley 1950). People are cognitively sensitive to warmth information (Fiske, Cuddy, and Glicke 2007), and in addition, interpersonal warmth appears to be influenced by perceptions of physical warmth (Williams and Bargh 2008).

Human cognition is grounded in and shaped by sensorimotor experiences (Barsalou 2008). The brain's modal systems capture and store modality-specific information that is reactivated at the time of cognition. Cognition then is determined by a multimodal representation of experiences gleaned from different modal systems to influence perception and action (Barsalou 2008). In particular, bodily states (e.g., perceptions of physical warmth) can cause cognitive states (e.g., an inference that a person is likeable).

This link between physical warmth and social cognition is interpersonal warmth, which is rooted in the biological structure of the human body and repeated interpersonal associations that are innately and easily acquired (IJzerman and Koole 2011). When a person feels warm, the associated feelings of trust and comfort are triggered, because such feelings are associated with warmth in knowledge structures through early positive childhood interactions with caregivers who provide warmth and nourishment. That is, feelings of physical warmth induce perceptions of psychological warmth (Williams and Bargh 2008). Accordingly, people who hold a warm stimulus judge a target as exhibiting a warmer personality and thus perform prosocial behaviors; people who hold a cold stimulus display lower warmth ratings and exhibit self-serving behaviors. Furthermore, when these respondents rate the target person's personality, only personality traits related to the warm–cold dimension vary notably.

A bidirectional relationship also emerges between perceptions of physical warmth and social proximity, or the perception of distance between the self and an other. Warm temperatures cause people to judge themselves as socially proximal to others, such that they exhibit a greater focus on interpersonal relationships than they would at colder temperatures (IJzerman and Semin 2009). Social proximity in turn influences perceptions of physical temperature; people who recall an incident in which they were socially excluded provide lower estimates of room temperature

and a greater desire to consume warm food and beverages, unlike those who recall being socially included (Zhong and Leonardelli 2008). Finally, social proximity is associated with prosocial behavior; people who feel socially excluded are significantly less likely to engage in prosocial behavior (e.g., donating money, volunteering time, helping) (Twenge et al. 2007).

In the investigation of the perception of physical warmth versus coldness, I aim to go beyond the haptic modality to consider whether physical contact with a warm (or cold) object is the only way to induce physical warmth. Research in grounded cognition (e.g., Barsalou 2008; Niedenthal et al. 2005) predicts that physical warmth can be evoked by information captured by any of the brain's modal systems (e.g., visual, auditory, olfactory, haptic and gustatory), such that even non-haptic stimuli can create perceptions of warmth. I explore exposure to two promising non-haptic classes of stimuli as a source of warmth: (1) colors of different hues and (2) images of objects that elicit different perceptions of warmth and coldness.

Colors and Interpersonal Warmth

A color is characterized in terms of hue (i.e., wavelength), brightness or value (i.e., black-to-white quality), and saturation or chroma (i.e., purity or vividness, with lower saturation colors containing more grey) (Valdez and Mehrabian 1994). The everyday associations in a culture link some colors (e.g., blue, green) to cooling sensations (water, mint), whereas others (e.g., red, orange) to warming sensations (fire, sun). In general, red and yellow are perceived as warmer than green and blue (Fenko et al. 2010), and research participants report warming sensations when exposed to a red stimulus and cooling sensations when exposed to a green stimulus, even when both stimuli are non-thermal and differ only in color (i.e., bottles containing red or green

solutions; Michael and Rolhion 2008; Michael et al. 2010). Thus, strong correlations exist between perceived physical warmth and visual exposure to warm colors (red, orange) and perceived physical coldness and visual exposure to cool colors (blue and green). Yet no research has determined if exposure to colors of different hues influences interpersonal warmth.

If visual exposure to different colors evokes different physical perceptions of warmth and coldness, grounded cognition research would imply that visual exposure to warm (but not cold) colors also should trigger the feelings associated with warmth in people's memories, and thereby influence subsequent interpersonal judgments of a target stimulus. I, therefore, posit:

H1a: A target presented against a warm color background will evoke judgments of a warmer personality than that same target presented against a cold or neutral color background.

Nature of the Object and Warmth

Can exposure to objects associated with different thermal perceptions (e.g., fire-hot, snow-cold) produce the same effects as touching the object? As mentioned previously, when people experience an event, the perceptual, physical, and introspective states they experience are captured and stored in knowledge structures, such that subsequent demands to use knowledge to represent a category reactivate multimodal representations and enable the brain to make inferences (Barsalou 2008; Niedenthal et al. 2005). One can reason that visual exposure to a warm (cold) stimulus should remind a person of the physical perceptions associated with such stimuli and make the person feel warm (cold), which then should lead him or her to judge a target as representing a warmer (colder) personality. In other words, my prediction regarding

exposure to warm versus cold colors and interpersonal warmth should hold for exposures to warm versus cold objects too. Thus, I expect:

H1b: A target presented after an exposure to a warm object will be judged as having a warmer personality than the same target presented after exposure to a cold object.

Nature of the Appeal and Color

Charity appeals tend to be either positive or negative (Chang and Lee 2009; Isen and Noonberg 1979; Pancer et al. 1979; Small and Verrochi 2009; Thornton, Kirchner, and Jacobs 1991). In theory, a negative appeal might be persuasive because it helps to evoke in (potential) givers prosocial emotions like sympathy. On the other hand, vivid images typically used in negative appeals could elicit psychological reactance, which alternatively provides the reason why such an appeal may be ineffective. Pancer et al. (1979) argue that charity appeals that use sad images of victims might not be effective, especially compared with an appeal that uses a positive image, because it threatens the viewer's belief in a just world and prompts psychological reactance (Brehm 1966).

Oliver (2008) empirically demonstrates that information portrayed in a sad, tragic, or poignant manner is preferred by people who feel connected to others or feel vulnerable, and this tender affective state is associated with feelings of warmth and affection. Therefore, a negative appeal might be effective if it can reduce psychological reactance and induce a tender affective state. But how would such an appeal be affected by the color used in producing the message?

As I have argued earlier, exposure to warm colors leads to higher perceptions of warmth (Michael et al. 2010) and that perceptions of warmth induce prosocial behavior (Williams and Bargh 2008; Fiske et al. 2007). Furthermore, research on the effects of ambient temperature on hue preference shows that people are more sensitive to the warmth of warm colors when they feel physically cold (Kearney 1966). Thus, if a negative appeal creates a feeling of being colder, presenting that appeal against a warm color background should make the warmth effect much more salient and enhance prosocial behavior.

Compared to warm colors, cold colors enhance positive moods (e.g., Coursaris, Swierenga, and Watrall 2008; Valdez and Mehrabian 1994). For example, retail environments in which cold colors dominate elicit more favorable and pleasant reactions than the ones with warm color dominance (Bellizzi and Hite 1992). Websites developed with predominantly cold (vs. warm) colors are deemed by participants to be more pleasant to view and are perceived to be more aesthetically appealing (Coursaris et al. 2008). However, a cold color's positive mood-boost would pale in comparison with the intense negative emotions evoked by the negative appeal itself. Thus,

H2: Exposure to a negative appeal presented against a warm color background will increase prosocial behavior compared with exposure to a negative appeal presented against a cold color background.

However, the utility of warm colors (enhancing perceptions of warmth related to prosocial behavior) and cold colors (increasing positive moods that may affect prosocial behavior) for a positive appeal is nebulous. Warm colors could be effective when used with a positive appeal because exposure to warm colors will lead to higher perceptions of warmth, which in turn should result in greater prosocial behavior. Conversely, exposure to a positive

appeal presented against a cold color background should result in an additive net positive affect and enhanced persuasiveness, as the positive appeal will induce positive moods, and the cold color will enhance it due to the color's association with positive affect.

If the former argument is valid, the positive appeal presented against warm colors will be more effective than the one presented against cold colors. However, if the latter argument is supported, the interaction effect will be significant and the results will be the opposite. If both effects are comparable, color will make no difference in the effectiveness of the positive appeal.

Although the impact of warm and cold colors for a positive appeal is uncertain, I can predict potential mediators irrespective of the direction of the results. I expect perceptions of warmth evoked by warm colors to influence one's perceptions of self-effectiveness -- the belief that an individual's effort can make a difference in solving a social problem -- i.e., one's prosocial belief. This prosocial belief is akin to 'perceived consumer effectiveness' (Ellen, Wiener, and Cobb-Walgren 1991).

Perceptions of warmth affect interpersonal warmth, inducing people to judge others to be more generous and warm. This may increase confidence in the belief that social problems could be resolved by cooperating with other people. People seem to be more likely to help others when they believe that others will cooperate (e.g., Wiener and Doescher 1991). Further, perceptions of warmth also induce prosocial behavior. Therefore, such a change of the perspectives of others and oneself evoked by perceptions of warmth is expected to affect the belief that self-effort can make a difference in solving social problems (e.g., impoverishment and child malnutrition). Thus, I expect such a personal belief to mediate the effect of warm colors on intention to donate. Specifically, if a warm color background for a charity appeal (regardless of the type of appeal) is

more effective than a cold color background, it will enhance prosocial beliefs, which will then serve as a mediator of the effect of color on prosocial behavior.

Using the same logic, I predict that positive affect is expected to mediate the effect of cold colors on prosocial behavior for a charity appeal if a cold color background is more effective than a warm color background. In other words, I expect a negative appeal presented against a warm (vs. cold) color background to be more effective, so prosocial beliefs will serve as a mediator in this relationship. However, mediators are more tentative for a positive appeal because both warm and cold colors could contribute to an increase in prosocial behavior. In sum, if a positive appeal presented against a warm (vs. cold) color is more effective, prosocial beliefs will serve as a mediator. If the result is opposite, positive affect will mediate between cold colors and prosocial behavior. Thus,

H3a: The relationship between a warm color background and prosocial behavior will be mediated by prosocial beliefs.

H3b: The relationship between a cold color background and prosocial behavior will be mediated by positive affect.

Overview of Studies and Method

I test this set of hypotheses in five studies. The purpose of study 1a is to determine whether varying the background color (warm vs. cold colors) against which an image of a person appears significantly alters feelings of interpersonal warmth (coldness) for that person and test hypothesis 1a. In study 1b, I manipulate perceptions of interpersonal warmth by exposure to visual stimuli other than background colors (e.g., steaming cup of hot tea vs. chilled glass of iced

tea) and assess hypothesis 1b. The purpose of studies 2 and 3 is to test a series of hypotheses regarding an interaction effect of color and appeal-type and underlying persuasive mechanisms. In study 2, I test how various colors interact with the type of charity appeals by measuring actual donation behavior, and in study 3, I investigate two potential mediators depending on the characteristics of colors (i.e., prosocial beliefs for a warm color background and positive affect for a cold color background). In study 4, I determine if the perceptions of warmth from warm colors and their effect on charitable appeals would hold for the images of objects evoking warmth.

In all the studies, participants across both the pretests and main studies were non-color blind college students, who participated for extra credit (unless otherwise noted). Participants were randomly assigned to various conditions, and the data were collected in a computer lab except for the pretest for study 2. In all color-related studies, color saturation and luminance were constant; the colors differed only in their hues. All mediation analyses relied on 10,000 bootstrapped samples and reported bias corrected and accelerated confidence intervals. None of the students guessed the purpose of the studies.

STUDY 1A: EFFECT OF COLORS ON INTERPERSONAL WARMTH

This study tests hypothesis 1a by investigating whether exposure to warm versus cold colors differentially influences interpersonal warmth. I predict that when a person's image and description appear against a warm color background, as opposed to a cold or neutral one, ratings of that person will indicate a warmer personality.

Method

I used a one-factor, three-level (orange/warm, blue/cold, and grey/neutral) randomized design. Forty-five college students participated. In line with an established procedure (Williams and Bargh 2008), I created three images of an anonymous man (“Person A”) against the different background colors. Below the image, a description of Person A called him intelligent, skillful, industrious, determined, practical, and cautious.

Participants first looked at the stimulus on the computer screen and reported their first impression of the target by completing a personality impression questionnaire (Williams and Bargh 2008) that assesses ten personality traits, half of which are related to the warm–cold dimension. Therefore, the dependent variables were ten personality traits using bipolar scales anchored by the trait and its opposite (i.e., five traits semantically related to the warm–cold dimension: $\alpha = .75$; five traits unrelated to this dimension: $\alpha = .28$) (see Appendix 2 for details).

Results and Discussion

A one-way analysis of variance (ANOVA) revealed a main effect of color on interpersonal warmth ($F(2, 42) = 4.34, p < .05$). I applied a Bonferroni correction, with alpha significance set at .025, for the dependent variables in the two comparisons. Planned contrasts showed that the target was perceived as having a warmer personality against the warm color background ($M_{\text{warm}} = 4.81$) compared with the cold color background ($M_{\text{cold}} = 4.00; t(42) = 2.61, p = .012$) or neutral color background ($M_{\text{neutral}} = 4.04; t(42) = 2.61, p < .015$). The ratings of traits

unrelated to the warm–cold dimension were similar across all conditions, in line with Williams and Bargh’s (2008) findings.

The effects of exposure to a warm versus cold or neutral background color thus are specific to interpersonal warmth, as is holding thermally warm versus cold stimuli (Williams and Bargh 2008) or including the words “warm” and “cold” in a target’s description--a technique originally introduced by Asch (1946) and since utilized in numerous studies (e.g., Babad, Kaplowitz, and Darley 1999; Orehek et al. 2010). In support of hypothesis 1a, exposure to warm colors affects interpersonal warmth, due to people’s strong color–temperature associations. This study shows that visual modality influences cognition, akin to the way haptic modality does.

STUDY 1B: EFFECTS OF EXPOSURE TO IMAGES OF WARM AND COLD OBJECTS ON INTERPERSONAL WARMTH

To test hypothesis 1b, I investigate whether looking at pictures of objects that are associated with different degrees of physical warmth produces an effect that is congruent with visual exposures to different background colors (study 1a), similar to the physical handling of such objects (Williams and Bargh 2008).

Method

A one-factor (preceding object: warm vs. cold), completely randomized design was used, and 51 students participated. I developed two product profile descriptions for warm and cold objects that differ in perceived physical temperature: a steaming cup of hot tea and a chilled glass

of iced tea. Each profile contained two product pictures and provided information about the benefits of drinking tea.

Participants were told that the purpose of the study was to gather feedback about drinking tea—specifically, how the consumption experience differed from that of drinking coffee. All participants viewed the stimuli on computer screens and responded to questions regarding the benefits of drinking tea. Then in an ostensibly unrelated study (about how people form impressions of others), participants were shown the picture of the anonymous man from study 1a, against a neutral color background, and then completed the same measures as in study 1a.

Results and Discussion

The participants rated Person A as significantly warmer if they had previously seen the picture of the warm object ($M_{\text{warm}} = 5.37$ vs. $M_{\text{cold}} = 4.53$; $t(49) = 3.22$, $p < .01$). However, personality traits that were not related to the warm–cold dimension were not judged as different ($t(49) = 1.49$, $p > .1$). These results support hypothesis 1b--that visual exposure to images of objects associated with physical warmth can indeed affect interpersonal warmth.

STUDY 2: COLOR, APPEAL, AND DONATION BEHAVIOR

The results of the previous study show that interpersonal warmth is evoked when people are exposed to warm (vs. cold) colors. Thus, perceptions of warmth from warm colors may also affect people's prosocial behavior. In study 2, I tested hypothesis 2 and specifically, examined

whether the type of color (i.e., cold vs. warm) in a charity appeal also moderates the influence of the charity appeal-type (i.e., positive vs. negative) on prosocial behavior.

Method

I used a 2 (appeal: positive vs. negative) \times 2 (color: warm vs. cold) between-subjects design. Seventy-seven college students (Age = 21.4; 43 male students) participated, for a payment of \$10 each. I developed two one-page charity flyers (positive vs. negative) for Save the Children. Each flyer appeared against either a warm (orange) or a cold (blue) color background.

In a pretest, I checked whether these positive and negative appeals presented against the same color background arouse different affect states but deliver comparable information. Participants (N = 40) recruited from Amazon Turk, reported how they felt while reading the flyer [positive affect (five items, nine-point scale: calm, relaxed, pleased, excited, and stimulated, $\alpha = .79$; adapted from Larsen, McGraw, and Cacioppo's study (2001); negative affect (five items, nine-point scale: guilty, remorseful, sad, unhappy, and angry, $\alpha = .83$; Lydon et al. 1996)]. I also measured message informativeness between the two types of appeals (one item, nine-point scale; Mogilner, Rudnick, and Iyengar 2008). As expected, people experienced distinctively different affective states from the positive and negative appeals. They reported more negative affect while reading the negative flyer ($M_{\text{positive}} = 4.14$ vs. $M_{\text{negative}} = 5.48$; $t(38) = -2.34$, $p < .05$) and more positive affect while reading the positive flyer ($M_{\text{positive}} = 4.54$ vs. $M_{\text{negative}} = 3.28$; $t(38) = 2.72$, $p < .05$). However, there was no significant difference in message informativeness between positive and negative appeals ($M_{\text{positive}} = 7.05$ vs. $M_{\text{negative}} = 6.90$; $t(38) = .27$, $p > .70$).

In the main study, the 77 participants first completed a half an hour marketing survey, for which they were expected to receive a payment. Next, I asked them to look at the charity flyer on their computer screens. After reading it, they were asked if they would like to donate any part (\$0–\$10) of the money that they would receive for their participation in the survey to the charity, with the assurance that any donation contribution would be strictly voluntary and confidential. They also indicated their familiarity with the charity (1 = “not at all familiar,” 5 = “very familiar with the organization”). I considered a charity familiarity as a covariate because familiarity is an important factor that affects attitudes and behavioral intention (e.g., Laroche, Kim, and Zhou 1996). Finally, as they left the lab, participants received empty envelopes in which they could place the amount that they had pledged to the charity (the money was actually donated). Demographic information was already reported from the previous marketing survey. Since gender differences in helping behavior were not consistent across studies (Eagly and Crowley 1986), I relied on Keppel’s (1982) suggestion to include it as a covariate based on statistical criteria. Because there was no correlation between gender and donation amounts, gender was not included as a covariate (Keppel 1982) in this and subsequent studies.

Results and Discussion

I found a significant interaction effect of background color with appeal-type on donation amount ($F(1, 72) = 9.393, p < .01$). There was no main effect of color or appeal-type ($ps > .8$). Pairwise comparisons showed that people donated more after reading the negative appeal against a warm color background ($M_{\text{warm}} = \$4.16$ vs. $M_{\text{cold}} = \$1.76; F(1, 72) = 4.25, p < .05$), which supports hypothesis 2. However, the relation was reversed for the positive appeal; people

donated more after reading it against a cold color background ($M_{\text{cold}} = \$4.31$ vs. $M_{\text{warm}} = \$1.63$, $F(1, 72) = 5.21, p < .05$) (see figure 1).

“Insert figure 1 about here”

As expected, a negative appeal against a warm color background was more effective to enhance prosocial behavior presumably because the evoked perceptions of warmth from the color background could be more salient when it is contrasted with a negative appeal and thus it may contribute to making people be more prosocial. However, the results appear to show that the perceptions of warmth from warm colors might not be salient enough to enhance prosocial behavior when a positive appeal is presented against them. Conversely, the positive affect association with a cold color seems to contribute more significantly to enhancing the effectiveness of the positive appeal. In the following study, I investigate this relationship of color and appeal-type more thoroughly, taking consideration of two mediators for each color, as hypothesized hypotheses 3a and 3b.

STUDY 3: INTERACTION EFFECTS OF COLOR AND APPEAL-TYPE ON INTENTION TO DONATE

I investigate whether the type of color in a charity appeal moderates the influence of the charity appeal on donation intentions. First, I predict that a negative appeal presented against a warm (vs. cold) color background will be more effective in enhancing intention to donate because perceptions of warmth from warm colors in a negative appeal will be more salient, as people perceive warmth from warm colors more significant when they feel physically colder. In a pretest, I examine if people actually feel colder when they read a negative appeal versus a

positive appeal. Moreover, I expect these perceptions of warmth to influence one's prosocial belief that effort can make a difference in solving a social problem (hypothesis 3a).

Second, I predict that a positive appeal presented against a cold (vs. warm) color background will be more effective because the positive appeal will induce positive affect, and the cold color will enhance it due to the color's association with positive moods. Thus, the positive affect is expected to mediate the effect of cold colors on intention to donate for a positive appeal (hypothesis 3b). In sum, I investigate how color effects enhance intention to donate via these two different mediators--prosocial beliefs for a negative appeal and positive affect for a positive appeal.

Pretest

I test whether exposure to a negative (vs. positive) appeal differentially affects perceptions of ambient temperature in a pretest based on the previous finding that mood differentially influences body temperature (Crawford, Friesen, and Tomlinson-Keasey 1977).

I used a one-factor, two-level (appeal: positive vs. negative), completely randomized design with 29 college students. The positive and negative appeals (operationalized following Cunningham, Steinberg, and Grev 1980) appeared in three-page flyers for World Vision, an international nonprofit organization. Each flyer consisted of three pictures of children (potential beneficiaries), as well as information about their situation.

Participants read the flyer on a computer screen and rated how they felt while reading the material. The dependent variables were negative feelings, measured on a four-item, nine-point scale (tense, fearful, sad, pleasant[®]; $\alpha = .84$; Bagozzi and Moore 1994). Several unrelated filler

questions followed before participants estimated the ambient room temperature, ostensibly as part of another study. The actual room temperature was taken at the end of each study session using a room thermometer. To assess temperature differences, I converted all information to the Fahrenheit scale (e.g., Temp (reported) 74°F – Temp (actual) 76°F = Temp (difference) -2°F).

As expected, participants reported different negative feelings from the positive and negative appeals ($M_{\text{positive appeals}} = 5.48$ vs. $M_{\text{negative appeals}} = 6.98$; $t(27) = -2.14$, $p < .05$). Also, a significant discrepancy was found between perceived and actual room temperatures ($M_{\text{positive}} = -.94$ vs. $M_{\text{negative}} = -4.54$; $t(27) = 2.74$, $p < .05$). Readers of the negative appeal reported feeling colder than those who read the positive appeal. Removing an outlying observation outside of the interval [$Q1 - 1.5 \times IQR$; $Q3 + 1.5 \times IQR$] (Tukey 1977) did not change the result ($M_{\text{positive}} = -.94$ vs. $M_{\text{negative}} = -3.83$; $t(26) = 2.41$, $p < .05$), indicating the robustness of the results.

Considering the small sample size, I conducted a mediation analysis using bootstrapping (Preacher and Hayes 2008). The 95% bootstrap confidence interval (CI) did not include 0 (Lower CI = .0604; Upper CI = 1.43). That is, negative feelings elicited by exposure to the charity appeal mediated the relationship between appeal-type and the temperature discrepancy. People feel more negative after reading negative appeals, which in turn makes them feel colder. Thus, this result offers support to the hypothesis that perceptions of warmth from warm colors would be more salient when a negative appeal is presented against the colors because they feel colder, which in turn leads respondents to be more prosocial.

Method

I conducted a pretest to rule color-type influencing the message readability. In the pretest,

I confirmed the readability of both flyers (orange and blue) on a one-item, nine-point scale, to rule out the possibility that different colors influenced readability, which might influence message efficacy. The layout of both flyers was identical, so the 25 student pretest participants rated only the readability of the warm versus cold positive flyers. No difference in readability emerged ($M_{\text{warm}} = 7.15$ vs. $M_{\text{cold}} = 7.25$; $t(23) = -.14, p = .89$).

In the main study, a 2 (appeal: positive vs. negative) \times 2 (color: warm vs. cold) between-subjects design featured 123 student participants (Age = 21.17; 74 male students). The stimuli were the same as in the pretest but presented against either a warm (orange) or a cold (blue) color background. The participants read the flyer on their computer screens, as they normally would in their daily lives, then responded to some questions about it. Before reading the flyer, participants reported on their familiarity with the charity. After they had read it, I took the following dependent measures: familiarity that served as a covariate, positive affect ($\alpha = .80$), and negative affect ($\alpha = .84$) on the same scale I used in study 2; prosocial belief (two items, nine-point scale (reversed); “*There is not much any one person can do about the starvation and famine in the world*”; “*The helping efforts of one person are useless as long as other people refuse to join*”; $r = .63, p < .001$, as modified from a measure of perceived consumer effectiveness in Ellen et al. 1991); and intention to donate (three items, nine-point scale: “*How likely are you to participate in donation in the future,*” “*I would like to make a donation to this organization in the future,*” and “*I intend to get more information about how I can participate in donation*”; $\alpha = .86$, modified from Bagozzi and Moore 1994; Basil, Ridgway, and Basil 2008). Given a high correlation between behavioral intention and behavior (e.g., Sheppard, Hartwick, and Warshaw 1988), I only measured donation intention in this and the next studies.

Results and Discussion

Manipulation check. Affective state served as the manipulation check for appeal-type. We expected the positive (negative) flyer to arouse positive (negative) feelings. As expected, people reported more positive affect while reading the positive flyer ($M_{\text{positive}} = 5.01$ vs. $M_{\text{negative}} = 3.17$; $t(121) = 9.04, p < .01$) and more negative affect while reading the negative flyer ($M_{\text{positive}} = 4.64$ vs. $M_{\text{negative}} = 6.13$; $t(121) = -4.74, p < .01$).

Intention to donate. I uncovered a significant interaction effect between color and message type on intention of donate ($F(1, 118) = 10.39, p < .01$). In pairwise comparisons, intention to donate was higher after exposure to the negative appeal that appeared against a warm color background ($M_{\text{negative warm}} = 5.77$ vs. $M_{\text{negative cold}} = 4.74$; $F(1, 118) = 5.13, p < .05$) or the positive appeal that appeared against a cold background ($M_{\text{positive cold}} = 5.68$ vs. $M_{\text{positive warm}} = 4.65$; $F(1, 118) = 5.26, p < .05$) (see figure 2). These results are comparable to those of study 2 in which I measured donation behavior. Familiarity with the organization also had a positive impact on intention to donate ($F(1, 118) = 6.21, p < .05$).

“Insert figure 2 about here”

Mediation via prosocial belief. Mediation analyses (Preacher and Hayes 2008) confirmed the indirect effect of prosocial beliefs on the relationship between the background color and intention to donate for the negative appeal (95% bootstrap CI: Lower CI = .0339; Upper CI = .4967) but not for the positive appeal (95% bootstrap CI: Lower CI = -.1779; Upper CI = .0237) (see figure 3). In support of hypothesis 3a, warm (vs. cold) colors increased prosocial beliefs,

which in turn promoted intention to donate for the negative appeal. However, this mediation relationship did not exist for the positive appeal.

“Insert figure 3 about here”

Mediation via positive affect. The next mediation analyses (Preacher and Hayes 2008) confirmed that positive affect mediated the relationship between background color and intention to donate in the positive appeal (95% bootstrap CI: Lower CI = -.3803; Upper CI = -.0240), though not the negative appeal (95% bootstrap CI: Lower CI = -.1320; Upper CI = .0582) (see figure 4). In support of hypothesis 3b, positive affect was enhanced by cold colors, which in turn promoted participants’ intention to donate for the positive appeal.

“Insert figure 4 about here.”

I hypothesized that background color may exert differential effects on intention to donate, depending on the nature of the charity appeal, such that the effect reflects two unique process mechanisms. The results from study 3 support the prediction that a cold background color is more effective when used with a positive appeal, because it increases positive affect and thus intention to donate. In contrast, a warm background color is more effective when used with a negative appeal, because the perceived warmth generated by the warm color increases prosocial belief, which enhances donation intentions. Hence, the color–mood effect exerts a greater influence on the effectiveness of positive appeals than does the color–temperature effect. For negative appeals, the color-temperature effect is more salient.

The use of warm colors with a positive appeal could have an inherent persuasion limitation, in that the positive appeal may induce higher perceptions of physical warmth, i.e., the warm color background of the appeal might evoke physical warmth, but because physical

warmth perceptions already have been evoked by the nature of the appeal, there may be no incremental impact of induced physical warmth from the background color on the intention to donate. More importantly, the perceptions of warmth evoked by the warm color background might not be salient enough to be influential when the positive appeal is presented against a warm color background because there would be no contrast effect. On the contrary, the perceptions of warmth from the warm color background would be more salient when a negative appeal appears against a warm color background because people would feel colder while reading the negative appeal. I thus find that the appeal and background color interact to produce different effects on intention to donate and actual donation behavior.

In study 1b, I found that interpersonal warmth can be manipulated by an exposure to an image of a warm object. Visual stimuli that are associated with warm and cold thermal temperatures act much like background colors in inducing significantly different interpersonal warmth. We, therefore, expect that the interaction effect of the background color and the appeal-type will hold for various object image types (i.e., warm vs. cold). I explore these interactions in study 4.

STUDY 4: EFFECTS OF EXPOSURE TO IMAGES OF WARM AND COLD OBJECTS ON THE EFFECTIVENESS OF CHARITY APPEALS

I expect that the interactions of appeal-type with background colors will also hold for different object types (i.e., warm vs. cold objects). A negative appeal should be more effective in eliciting donation intentions when it is preceded by an image of a warm rather than a cold object. Exposure to a warm (vs. cold) object should cause one to feel physically warm, which is

associated with prosocial behavior (Williams and Bargh 2008). In addition, a negative appeal is preferred by those who are in a tender affective state (Oliver 2008), which will be enhanced by perceptions of warmth induced from exposure to a warm object. Thus, exposure to a negative appeal should prompt greater prosocial behavior when preceded by exposure to a warm (vs. cold) object. However, a positive appeal is likely to lead to similar prosocial behavior, irrespective of the preceding image of objects for the following reasons. First, the effect of the perceptions of warmth evoked by exposure to an image of warm objects could be weakened when it is followed by a positive appeal, which itself might induce higher perceptions of warmth. Second, exposure to an image of warm versus cold objects (not colors) is not expected to result in variation of positive and negative moods, so any significant impact of the exposure to an image is not expected for a positive appeal.

In sum, I posit that:

- H4a:** Preceding experiences with the images of warm (vs. cold) objects will affect the efficacy of the subsequent negative appeals more favorably.
- H4b:** Preceding experiences with the images of warm (vs. cold) objects will affect the efficacy of the subsequent negative appeals by enhancing one's prosocial belief.
- H5:** Positive appeals will lead to similar donation intentions irrespective of the images of the preceding object.

Method

A 2 (appeal: positive vs. negative) \times 2 (images of preceding objects: warm vs. cold) between-subjects design, with 110 participants (Age = 21.2; 70 male students) featured positive

and negative appeals for World Vision. Each one-page appeal consisted of two pictures of children (potential beneficiaries) and contained information about their situation and solicited donation; the appeal was framed either positively or negatively.

I conducted two pretests for the appeal and visual stimuli. First, 48 college students provided information about the perceived informativeness of the two messages, using the scale from studies 2 and 3. I found no significant differences between the two appeals ($t(46) = -.75, p > .45$) in terms of their informativeness. I also measured positive affect ($\alpha = .84$) and negative affect ($\alpha = .78$) on the same scales I used in studies 2 and 3, as a manipulation check for the nature of the appeal. As expected, participants who read the positive appeal felt more positive ($M_{\text{positive}} = 4.89$ vs. $M_{\text{negative}} = 2.80$; $t(46) = 5.14, p < .001$), whereas those who read the negative appeal felt more negative ($M_{\text{positive}} = 4.94$ vs. $M_{\text{negative}} = 6.25$; $t(46) = -2.86, p < .01$).

Second, because visual attractiveness relates to positive mood, I measured the attractiveness of four pictures of sunsets (warm object) and icebergs (cold object) and respondents' post-exposure moods to rule out the possibility that warm and cold objects would induce different moods. Finally, I also measured the warmth/coldness perception. Thirty students rated the pictures on their visual attractiveness (two items, seven-point scale: "Overall, the pictures are appealing/aesthetic"; $r = .62, p < .01$; Lertlum and Papasratorn 2005), positive or negative mood (two items, seven-point scale: "While looking at the pictures, I felt good/bad[®]"; $r = .40, p < .05$; Riketta and Dauenheimer 2003), and warmth (two items, seven-point scale: "While looking at the pictures, I felt warm/cold[®]"; $r = .93, p < .001$; Fenko et al. 2010). The pictures of the sunset and iceberg did not significantly differ in their visual attractiveness ($t(28) = -.87, p > .39$) or mood ($t(28) = .22, p > .82$); they differed only in terms of warmth ($M_{\text{warm}} = 6.17$ vs. $M_{\text{cold}} = 3.7$; $t(28) = 5.15, p < .001$).

In the main study, half the participants viewed four pictures of warm objects, and the other half looked at four pictures of cold objects. After responding to some unrelated filler questions, participants completed “another” survey related to charity appeals. Half of students who had seen the warm and cold objects now read the negative message, and the other half read positive messages. After the dependent measures, I probed whether they had guessed the study purpose. I assessed prosocial belief ($r = .63, p < .001$), intention to donate ($\alpha = .87$), and familiarity with the organization using the same measures from the previous studies.

Results and Discussion

Intention to donate. The object type ($F(1, 105) = 9.04, p < .01$) had a main effect on donation intentions; after looking at a warm object, people expressed higher intentions. This influence was qualified by a significant interaction effect of object with appeal ($F(1, 105) = 5.46, p < .05$). In pairwise comparisons, people who had viewed the warm object indicated a greater intention to donate when they later read the negative appeal ($M_{\text{warm}} = 5.55$ vs. $M_{\text{cold}} = 3.80; F(1, 105) = 14.75, p < .001$) supporting hypothesis 4a, but not the positive appeal ($M_{\text{warm}} = 4.34$ vs. $M_{\text{cold}} = 4.12; F(1, 105) = .21, p > .64$) supporting hypothesis 5 (see figure 5). Familiarity with the organization also had a significant impact on intention to donate ($F(1, 105) = 14.69, p < .001$). People who were more familiar with the charity reported a higher intention to donate.

“Insert figure 5 about here”

Mediation via prosocial belief. Mediation analyses (Preacher and Hayes 2008) confirmed the indirect effect of prosocial belief on the relationship between the object preceded and

intention to donate for the negative appeal (95% bootstrap CI: Lower CI = .0412; Upper CI = .5696), which supports hypothesis 4b, but not for the positive appeal (95% bootstrap CI: Lower CI = -.2685; Upper CI = .0155) (see figure 6).

“Insert figure 6 about here”

Proxy behavioral measure: Interest in receiving information. To investigate the relationship between behavioral intention and actual behavior further, I asked participants to leave a mailing address if they were interested in receiving more information from the organization. Of the readers of the negative appeal, 10.7% of those who looked at the warm objects left their mailing address, compared with only 3.4% of those who looked at cold objects. None of the readers of the positive appeal left their mailing address. One of the scale items I used to measure donation intention is “I intend to get more information about how I can participate in donation.” I found a significant correlation between this item and behavior ($r = .23, p < .02$) as well as donation intention and behavior ($r = .31, p < .01$).

GENERAL DISCUSSION

Conclusion

Social influence literature has explored different avenues to inducing prosocial behavior (Cialdini and Goldstein 2004). Some limited marketing literature also has examined prosocial behaviors in different marketing contexts (e.g., Olsen, Pracejus, and Brown 2003), yet the important question of how charities can best solicit donor support (Reed et al. 2007; White and

Pelozo 2009) continues to be understudied. With a basis in grounded cognition theory, I propose a novel way to develop more effective donation appeals. This approach, which adds to limited helping literature on message-related factors, can be easily adopted by nonprofit organizations to enhance prosocial behaviors, regardless of the solicitation strategy they choose.

Theoretical Contributions

Grounded cognition literature shows that holding warm stimuli induces feelings of interpersonal warmth and helping behavior; I extend this body of research in several ways. I discovered that interpersonal warmth can be induced *without* the use of warm haptic stimuli. In study 1a, a target person whose image appeared against a warm color background was judged to have a significantly warmer personality than when the same image appeared against a cold color background (Cohen's $d = .81$) or a neutral color background (Cohen's $d = .78$). The effect of background colors was specific to warm–cold personality traits and not to other personality traits (e.g., quietness, attractiveness, seriousness, strength, and honesty).

I also found support for my assertion that charity appeal-type may interact with the background colors differentially to induce prosocial intent or behavior (studies 2 and 3). For example, in study 3, a negative appeal matched with a warm color background induced a greater donation intention than the one against a cold color background ($\eta^2 = .042$); this effect was driven by prosocial beliefs. Similarly, a positive appeal matched with a cold background led to a greater intention to donate than the one against a warm color background ($\eta^2 = .043$); this effect reflects a message-induced positive affect.

I learned that interpersonal warmth and prosocial intention and behavior can be influenced not only with colors but also with other visual stimuli. In study 1b, the exposure to an image of a warm object made respondents judge a subsequently seen target person as much warmer in personality (Cohen's $d = .92$). Thus, images of a warm object and a warm color had similar effect on interpersonal judgment. Study 4 replicated the interaction between the image of a visual object inducing perception of warmth: a negative appeal matched with a preceding image of a warm object (i.e., sunset) induced a greater intention to donate than the one with a preceding image of a cold object (i.e., iceberg) ($\eta^2 = .114$), mediated by prosocial beliefs. I thus add to nascent marketing literature on grounded cognition and helping behavior, which thus far has explored the impact on helping behavior of only haptic cues, i.e., touch (Peck and Wiggins 2006) or non-verbal physical cues such as smiling, voice intonation, and facial expressions (Lee and Lim 2010).

Practical Implications

In more intimate settings, the extant literature argues for use of warm haptic stimuli. For instance, make a pitch for help while guests are enjoying a hot cup of tea or coffee as opposed to iced tea. The results suggest, though, that warm haptic stimuli, and hence the intimate settings are not necessary to induce interpersonal warmth and behavior, and that interpersonal warmth can be engendered through mass media campaigns. For instance, the finding that a negative appeal presented against a warm background color and a positive appeal presented against a cold background color enhances interpersonal warmth and prosocial behavior has practical implications for message design as well as media-planning. A charity such as World Vision,

which shows starving children living in horrible conditions, might do well to present its message against a warm color background to enhance its persuasiveness. However, if the charity were to use a positive appeal (e.g., show smiling children with improved living conditions through their aid), the appeal will likely garner more support if presented against a cold color.

The findings that visual images evoking warmth or coldness do interact with the appeal-type imply that charities need to be cognizant of where in a media vehicle (e.g., a magazine) their ad appears. The chances of an ad with a negative appeal succeeding are higher if the ad is preceded by editorial content and/or other ads containing images evoking warmth. And although I did not test it, based on theory, it seems logical that a positive message appeal would benefit if it appears after content that evokes positive mood. Perhaps interpersonal warmth-inducing stimuli could conceivably be tailored to promote specific prosocial behaviors, such as eliciting help in finding a missing person or pet by presenting the image of the missing individual against a warm color background.

Limitations and Future Research

It is to be noted that in my studies, I controlled for both color brightness and color chroma. Some studies, though, report that these two elements can influence a color's perceived temperature (Wright 1962) and the affect induced by the color (Valdez and Mehrabian 1994). This important caveat to my studies offers an issue for further studies to address.

My recommended approach presents an alternative to haptic modalities that is much easier to operationalize and yet produces similar perceptions of interpersonal warmth and concomitant prosocial behaviors. I limited my inquiry to warm and cold colors and certain

objects that are perceived as warm or cold. A systematic study of classes of stimuli that might create the perception of physical warmth or coldness and their relationship to interpersonal warmth is needed. For instance, prior exposures to other visual stimuli that affect emotional warmth (e.g., image of a baby in a mother's arms) also might induce helping behavior.

Potential extensions to other modalities include auditory and olfactory sensations. For example, do boiling-water sounds create the perception of warmth, whereas the sounds of cracking ice that of coldness? Could these auditory sensations affect interpersonal warmth and prosocial behavior? Would there be an additive effect of these various modalities on warmth-induction and consequent interpersonal warmth and prosocial behavior?

Finally, if feelings of physical and interpersonal warmth can be generated by simply looking at various stimuli, I might like to revisit certain aspects of atmospherics literature (e.g., Dijkstra, Pieterse, and Pruyn 2006; Harris et al. 2002). For example, in facilities such as hospitals, nursing homes, and banks, where people are frequently in need of help, what type of sensory stimuli might be used to promote helping? [In an exploratory study, I found a high correlation between perceptions of warmth from in-house colors of hospitals and the nurses' prosocial attitudes toward patients].

ESSAY 2: THE EFFECT OF CHARITABLE MESSAGES ON HELPING INTENTIONS IN TERMS OF MESSAGE TYPE AND VICTIM-TYPE - HALVE THEIR SORROWS, DOUBLE THEIR JOY:

INTRODUCTION

Previous studies show that a single or an identified victim is more appealing and draws more attention and help than a group of non-identified victims (e.g., Kogut and Ritov 2005^{a,b}; Small and Loewenstein 2003). This is called singularity/identification effect. The tendency to favor a single identified victim often causes a problematic, imbalanced distribution of donation of money and does not allow all victims to have a chance to get benefits. For example, “Baby Jessica received over \$700,000 in donations from the public, when she fell in a well near her home in Texas. Similarly, the plight of a wounded Iraqi boy, Ali Abbas, captivated the news media in Europe during the Iraq conflict and £275,000 was quickly raised for his medical care. More than \$48,000 was contributed to save a dog stranded on a ship adrift on the Pacific Ocean near Hawaii” (Small, Loewenstein, and Slovic 2007, p 143). All these cases demonstrate that some victims who attract more public attention could be supported more than necessary, which, consequently, results in the discrepancy of aid, and leaves many other victims, who draw less attention, in need.

A few remedies have been introduced to fix such disproportionate sharing of donations. For example, Small, Loewenstein, and Slovic (2007) demonstrated that it is possible to reduce favor towards a single victim by enlightening the donors on effect of contribution discrepancies. However, this solution led to an overall reduction of donations. As donors were deliberately taught and encouraged to consider the issue of the discrepancy in giving toward identifiable and

non-identifiable victims, they were actually less likely to help an identifiable single victim. But it did not increase in helping a group of victims. Instead, it decreased the overall amount of contributions.

Another suggestion, creating a joint evaluation condition could lead donors to rational (vs. emotional) decision making, which avoids the singularity effect. Kogut and Ritov (2005^b) found that the pattern of favorable contributions to a single victim was reversed when people were asked to choose between contributing to a single victim versus a group of victims. This is because their decision is derived from more quantity-based rational thinking than emotional reaction. However, this joint evaluation setting is not realistic. Although people could rely on rational decision-making when choosing between two alternatives, this situation has slightly unrealistic circumstances where we usually ask for donations. Therefore, it is a pressing need to find a realistic and efficient soliciting technique to get contributions to the needy.

In this essay, I suggest that varying the charity appeal-type is one way to resolve this charity discrepancy. A charity can design an appeal in manners that evokes different emotions. A positive appeal emphasizes a positive consequence of successful donations: showing an image of smiling children. Whereas, a negative appeal states a negative consequence of failure of donations: showing a sad image of children, which usually induces feelings of guilt. There seems to be no clear indication of better effectiveness than these two types of appeals. Some studies show a better efficacy of positive appeals (Dyck and Coldevin 1992; Isen and Noonberg 1979; Pancer et al. 1979), whereas others find the opposite (Chang and Lee 2009; Small and Verrochi 2009).

Positive and negative charity appeals are persuasive through different mechanisms. While positive affect plays a critical role for enhancing persuasiveness of a positive appeal

(Cunningham, Steinberg, and Grev 1980), prosocial emotions, such as, sympathy and empathy serve as a mediator to enhance persuasiveness of a negative appeal (Small and Verrochi 2009). Prosocial emotions also serve as a critical factor that affects singularity and identification effects (Kogut and Ritov 2005^a). Considering the analogous persuasive mechanisms of a negative appeal and the singularity/identification effect, I expect that the effect could be varied in terms of appeal-type, facilitated better with a negative appeal. In the following section, I develop my hypotheses more specifically, beginning with a literature review on singularity and identification effects and distinctive persuasive mechanisms of positive and negative charity appeals. The hypotheses will be tested in three studies, followed by a discussion of the findings and their theoretical and practical implications. Finally, I explore avenues for future research.

THEORETICAL BACKGROUND

Singularity/Identification Effect and Persuasive Mechanisms

A single identified victim was found to be more persuasive than a group of non-identified victims (Kogut and Ritov 2005^{a,b}; Small and Loewenstein 2003; Small, Loewenstein, Slovic 2007). One reason for this is related to evoking emotional reactions. A single individual tends to evoke more empathy than a group of individuals because the coherence from singularity is more likely to stimulate affective information processing (Kogut and Ritov 2005^a). Such information processing increases the likelihood of taking perspective of the individual, which consequently leads to empathy (Hamilton & Sherman 1996; Susskind et al. 1999). In other words, donors' empathic concerns increase as they see plight of a victim from the victim's perspective.

Additionally, the perspective of the victim increases as the victim's information is more coherent and identified, rather than abstract or statistical. Thus, people experience more empathic concerns for a single identified victim than a group of non-identified victims, and the intensified empathy serves as a critical role in increasing prosocial behavior.

Enhanced perspective-taking from a single victim is also related to an increase in attention. Dickert and Slovic (2009) found that attention is another determinant of empathic responses and that a single victim draws more attention than a group of victims. When the information of a victim is more specific, people are more mentally engaged and pay more attention to the victim (Hamilton and Sherman 1996; Sherman, Beike, and Ryalls 1999). Thus, both emotion-oriented information processing and enhanced attention allow a single victim to have more of an edge on a group of victims.

Interestingly, prosocial emotions such as empathy and sympathy play a critical role for both the persuasiveness of a negative appeal and singularity or identification effect, whereas their role is very limited for a positive appeal (e.g., Small, Loewenstein, Slovic 2007; Small and Verrochi 2009). Thus, it is necessary to examine if the stimulus appeals from previous studies showed singularity/identification effect were comparable to a negative appeal. For example, in the experiments, Kogut and Ritov (2005^b) used a victim who had a terminal disease. In Small, Loewenstein, and Slovic's (2007) study, the descriptions of the victims appear more negative. "In Zambia, severe rainfall deficits have resulted in a 42 percent drop in maize production from 2000. As a result, an estimated three million Zambians face hunger," "Rokia, a 7-year-old girl from Mali, Africa, Rokia is desperately poor, and faces a threat of severe hunger or even starvation." (p 152 *ibid*). Although one cannot conclude that all the stimuli used in those studies are comparable to a negative appeal, it is reasonable to doubt that the singularity effect might

appear more obviously in a negative appeal. In the next section, I articulate my argument that appeal-type will moderate the singularity and identification effects, based on the distinctive information processing and how it affects prosocial emotions for a single identified victim.

Mood and Information Processing

One critical factor that determines one's charity involvement is mood (Isen and Levin 1972). People experience different emotions because of the contagion effect of emotions (Small and Verrochi 2009). Emotional contagion from a sad image induces people to feel more sympathy toward a victim, which results in helping behavior (Small and Verrochi 2009). However, positive feelings also encourage people to help more (Aderman 1972; Moore, Underwood, and Rosenhan 1973). Thus, both positive and negative moods affect prosocial behavior.

Moreover, mood affects information processing style (e.g., Bless et al. 1990; Clark and Isen 1982; Gasper and Clore 2002; Vries, Holland, and Witteman 2008). Negative mood triggers concrete or local information processing, whereas, positive mood induces more abstract or global information processing (Gasper and Clore 2002). Thus, a positive appeal is more likely to induce abstract processing, and a negative appeal is expected to induce concrete information processing.

Based on the fit of information processing style and the type of information given about victim(s), a single identified victim who provides more specific and coherent information is expected to fit with a negative appeal because those who use concrete information processing are more likely to be persuaded by specific and concrete information rather than abstract and

statistical information. Therefore, I expect a single or an identified victim to be more appealing when the victim's circumstance is negatively portrayed.

However, positive appeals evoke a more positive mood, which facilitates abstract or global processing (Bless et al. 1990). Global processing leads people to focus on the forest (abstract information) rather than the trees (concrete information); so the abstract information of many victims (vs. concrete information of a single victim) is more likely to fit with this information processing style. Therefore, a single victim should be more appealing than a group of victims for a negative appeal, whereas the results should be opposite for a positive appeal. More formally,

H1: Appeal-type will moderate the effectiveness of a single victim.

H1a: A single victim will be more effective than a group of victims for a negative charity appeal.

H1b: A group of victims will be more effective than a single victim for a positive appeal.

STUDY 1: INTERACTION EFFECT OF APPEAL AND VICTIM-TYPE ON INTENTION TO DONATE

The objective of study 1 is to test the main hypothesis that an interaction effect appears between appeal-type and victim-type (single vs. group). I expect the singularity effect exists in a negative appeal, but disappears in a positive appeal.

Method

Stimuli. I took part of the contents from the webpage of World Vision for designing a stimulus with minimal editorial changes, such as changing ‘child’ to ‘children.’ I created positive and negative charity appeals. Each appeal consisted of an image of a child or children in need and contained descriptions regarding the victim(s)’ hygienic, educational, and health conditions. A positive appeal described more desirable consequences of helping and an image of smiling child or children, while a negative appeal established the negative consequences of failing to help a sad child or children. No identification information was given in both positive and negative appeals. I also manipulated *many victims* versus *one victim*, using a consistent word in the whole context such as “children” versus “a child.” I finally created four types of stimuli.

Design and Participants. I used a 2 (appeal: positive and negative) x 2 (victim: single and group) between subjects design. Ninety-six college students participated in the study for course credit (47 male participants).

Procedure. Participants were randomly assigned to one of the four experimental conditions. They looked at a charity appeal on a computer screen and answered several questions regarding the appeal. I measured positive affect on a three item nine-point scale (i.e., happy, pleasant, excited; $\alpha = .94$) and negative affect on a two item nine-point scale (i.e., remorseful and sad; $r = .65$) for manipulation check of the appeal-type. I measured intention to donate on a three-item, nine-point scale (“*I would like to make a donation to this organization in the future,*” “*After seeing the flyer, I want to make a donation,*” “*Are you more likely to donate after reading*

this flyer than before?”; $\alpha = .86$). Next, I measured familiarity with World Vision on a one-item, five-point scale, which is included as a covariate in all analyses. I then debriefed the participants about the study.

Results and Discussion

Manipulation check. The positive charity appeal, compared to a negative one, aroused more positive affect ($M_{\text{positive appeal}} = 4.47$ vs. $M_{\text{negative appeal}} = 2.66$, $t(94) = 6.22$, $p < .001$) and less negative affect ($M_{\text{positive appeal}} = 5.53$ vs. $M_{\text{negative appeal}} = 6.39$, $t(94) = -2.17$, $p < .05$), when using one tailed p-value.

Intention to donate. My expectations were that a single victim would be more effective in enhancing helping intentions than a group of victims for a negative appeal, with the opposite being true for a positive appeal. Neither the main effect of charity appeal nor the victim-type was significant ($F(1, 91) < 1.0$, respectively). As expected, I found a significant interaction effect of appeal-type and victim-type ($F(1, 91) = 9.27$, $p < .01$). Pairwise comparisons showed that a single victim was more persuasive than a group of victims for a negative appeal ($M_{\text{single}} = 5.90$ vs. $M_{\text{group}} = 4.79$, $F(1, 91) = 4.638$, $p < .05$) and that the results were opposite for a positive appeal ($M_{\text{single}} = 5.05$ vs. $M_{\text{group}} = 6.18$, $F(1, 91) = 4.636$, $p < .05$) (see figure 7). The results support hypotheses 1a and 1b. The covariate, familiarity with the organization, had a significant impact on intention to donate to this organization ($F(1, 91) = 11.30$, $p < .01$).

“Insert figure 7 about here”

Although the previous results were consistent with my expectations, the study had some limitations. First, the potential confounding effects aroused by different images of the *child* and the *children* were not controlled because a different image for each stimulus could affect participants' evaluation of an appeal and the resulting helping behavior in unexpected ways. Thus, in study 2, I replaced images of a child and children with one neutral image that represented the organization for both positive and negative appeals. Moreover, I examined specific persuasive mechanisms for each type of appeal in study 2.

STUDY 2: INTERACTION EFFECT OF APPEAL AND VICTIM-TYPE AND UNDERLYING MECHANISMS BOTH POSITIVE AND NEGATIVE APPEALS

The reason why a single victim is more persuasive is because donors are likely to be emotionally engaged to a single victim and more likely to be involved in affective information processing (Kogut and Ritov 2005^{a,b}). Such information processing increases prosocial emotions such as empathy and sympathy, as donors are more likely to take perspective of the victim. Those prosocial emotions increasingly influence persuasiveness of a negative appeal, which is in line with previous studies. Therefore, I expect that prosocial emotions will serve as a mediator for a negative appeal.

H2a: A single victim (vs. a group of victims) will result in greater prosocial emotions for a negative appeal.

H2b: Prosocial emotions will serve as a mediator for a negative appeal.

Positive affect rather than prosocial emotions, is expected to enhance message-persuasiveness for a positive appeal. It was found that charity appeal-type moderates the impact

of mood on helping-behavior and that positive mood increases the persuasiveness of a positive appeal (Cunningham, Steinberg, and Grev 1980).

As mentioned above, there would be a fit between abstract processing and abstract or statistical information, which leads the abstract information of non-identified victims to be more appealing when the appeal has a positive tone. Abstract processing is more likely to be induced from a positive appeal. When involved in abstract processing, people are likely influenced by decision-bias such as temporal reframing (Gourville 1998). According to the temporal reframing bias, people tend to perceive a temporally combined gain as bigger than separate tiny gains, though it is in contrast to the principles of mental accounting theory (Thaler 1985). For example, the appeal that demonstrates an aggregated gain (e.g., you could save \$1825 per year if you quit smoking) is more persuasive than small separate gains (e.g., you could save \$5 a day if you quit smoking) because people are likely to be influenced by the initial perception of the amount (\$1,825 vs. \$5) rather than the period during which they make gains. The number is calculated based on the assumption that a person smokes a pack of cigarette (\$5) daily. This temporal reframing effect could be applied to the framing of a donation appeal. People would experience a positive mood, as they initially perceive that their donation would contribute to making many victims happier than a single victim. This happens as they pay less attention to the proportions of the benefit distributed to every victim. Therefore, I expect the positive affect evoked by saving many children (vs. a child) to enhance the intention to donate for a positive appeal.

H3a: A group of victims (vs. a single victim) will enhance positive mood for a positive appeal, but not for a negative appeal.

H3b: Positive affect will serve as a mediator for a positive appeal.

Method

Stimuli. I used the same stimuli as study 1 but replaced the image of a child or children with a neutral image of the organization. In the pretest, I examined whether the stimulus-appeals evoke differential affect without images of victim(s). I measured positive ($\alpha = .93$) and negative affect ($r = .70$) as in study 1. As expected, I found from 40 college student participants that a positive appeal aroused more positive affect ($M_{\text{positive appeal}} = 4.53$, $M_{\text{negative appeal}} = 1.52$, $t(38) = 6.807$, $p < .001$) and less negative affect ($M_{\text{positive appeal}} = 5.10$, $M_{\text{negative appeal}} = 6.43$, $t(38) = -1.98$, $p < .05$) than a negative appeal.

Procedure. A 2 (message type: positive vs. negative) x 2 (victim: single—child vs. group—children) between subjects design was used. Participants were college students (96 males, 58 females), who received course credit for participation. Participants were randomly assigned to one of the four experimental conditions. They looked at a charity appeal and answered questions related to the appeal. Empathy as a prosocial emotion was measured, using a four-item, nine-point scale (i.e., *sympathetic*, *compassionate*, *soft-hearted*, and *tender*; $\alpha = .92$; adapted from Cialdini et al. 1997). All other dependent variables were the same as used in study 1: positive affect ($\alpha = .85$), negative affect ($r = .65$), intention to donate, ($\alpha = .87$), and familiarity with the organization. Participants were dismissed after being debriefed.

Results and Discussion

Intention to donate. An ANOVA revealed that neither the main effect of charity

appeal-type nor the victim-type was significant ($F(1, 149) < 1.0$). However, I found a significant interaction effect of appeal-type and victim-type (a child vs. children) on intention to donate ($F(1, 149) = 11.89, p = .001$). Pairwise comparisons showed that a single victim was more persuasive than a group of victims for a negative appeal ($M_{\text{single}} = 5.29, M_{\text{group}} = 3.95, F(1, 149) = 9.38, p = .003$), but that a group of victims is marginally more effective than a single victim in enhancing intention to donate for a positive appeal ($M_{\text{single}} = 4.45, M_{\text{group}} = 5.29, F(1, 149) = 3.29, p = .072$) (see figure 8). The results confirmed the findings of study 1. Familiarity with the organization also has a positive impact on intention to donate ($F(1, 149) = 7.24, p = .008$).

“Insert figure 8 about here”

Empathy. An ANOVA showed that neither main effect of appeal-type nor victim-type on empathy was significant ($F(1, 149) < 1.0$, respectively). An interaction effect was marginally significant ($F(1, 149) = 3.37, p = .068$). Pairwise comparison showed that a single victim induced more empathy than a group of victims for a negative appeal ($M_{\text{single}} = 6.88, M_{\text{group}} = 6.19, F(1, 149) = 3.67, p = .057$), but there was no difference in empathy in terms of victim-type for a positive appeal ($F(1, 149) < 1.0$), which supports hypothesis 2a (see figure 9).

“Insert figure 9 about here”

Mediation via empathy for a negative appeal. It was expected that prosocial emotions such as empathy serve as a mediator to enhance persuasiveness of a negative charity appeal. I conducted a mediation analysis using bootstrapping (Preacher and Hayes 2008) and relied on 5,000 bootstrapped samples and reported bias correct and accelerated confidence intervals. A significant effect of victim-type on empathy was found ($a = -.70, p = .052$), which showed that a

single victim induced more empathy than a group of victims. It was also found that empathy affects intention to donate significantly ($b = .81, p < .001$). Further, a single victim versus a group of victims enhanced intention to donate ($c = -1.36, p < .01$). When I regressed empathy and victim-type together on intention to donate, the effect of victim-type was reduced ($c' = -.79, p < .05$). The results showed that 95% bootstrap confidence interval did not include 0 (Lower CI = -1.1807; Upper CI = -.0041), which confirmed the mediating role of empathy for a negative appeal (see figure 10). The mediation analysis, thus, supports hypothesis 2b.

“Insert figure 10 about here”

Positive affect. A main effect of appeal-type on positive affect was significant ($F(1, 149) = 11.695, p = .001$), which showed that a positive appeal induced greater positive affect than a negative appeal as expected. The effect of victim-type on positive affect was also significant, which showed that a group of victims induced more positive affect than a single victim ($F(1, 149) = 4.925, p < .05$). An interaction effect of these two variables was significant ($F(1, 149) = 12.637, p = .001$). Pairwise comparison showed there is a significant difference in positive affect between a single victim and a group of victims for a positive appeal ($M_{\text{single}} = 3.65, M_{\text{group}} = 5.17, F(1, 149) = 15.69, p < .001$) but not for a negative appeal ($F(1, 149) < 1.0$), which supports hypothesis 3a (see figure 11).

“Insert figure 11 about here”

Mediation via positive affect for a positive appeal. I found a significant effect of victim-type on positive affect, which showed that *children* induced more positive affect than *child* ($a = 1.52, p = .001$). It was found that positive affect influences intention to donate ($b = .27, p = .068$).

Further, *children* (representing a group of victims) versus *child* (a single victim) enhanced greater intention to donate marginally ($c = .87, p = .061$). Regressing positive affect and victim-type together on intention to donate reduced the effect of victim-type ($c' = .45, p > .36$). This mediation relationship was confirmed as the 95% bootstrap confidence interval did not include 0 (Lower CI = .0076; Upper CI = .9833). The results support hypothesis 3b (see figure 12).

“Insert figure 12 about here”

In sum, the results showed that a negatively portrayed single victim was more persuasive than a negatively portrayed group of victims, and the message effectiveness was mediated by empathy. These results are consistent with those of the previous studies concerning the singularity effect. However, the results showed that when portrayed positively, a group of victims was more effective than a single victim because perception of saving many victims induces more positive feelings.

STUDY 3: SINGULARITY EFFECT OF IDENTIFIED VICTIM(S) AND APPEAL-TYPE

Previous studies showed that a single identified victim is more persuasive because the specific information given under that condition attracts greater attention and causes larger empathic concerns (Small, Loewenstein, and Slovic 2007). In this study, I will examine the robustness of the moderating effect of appeal-type by comparing two somewhat extreme conditions—a single identified victim versus a group of non-identified victims. I expect that:

H4: Type of appeal will moderate the effectiveness of a single identified victim.

H4a: A single identified victim will be more effective than a group of non-identified victims for a negative charity appeal.

H4b: A group of non-identified victims will be more effective than a single identified victim for a positive appeal.

Method

One hundred and thirty-two (male = 71) college students participated in the study for extra course credit. I adapted stimuli design from Kogut and Ritov's (2005^b) study. Stimuli consisted of six identified victims (by including a victim's name and age) whose image induced a more positive mood and the other six identified victims who looked sadder. Half of the participants were asked to look at one of the twelve stimuli, which consist of six positive and six negative charity appeals for a single identified victim. For a positive appeal of a group of non-identified victims, all six images being used in the appeals for a single identified victim were incorporated together in the appeal and no identification information was revealed. In the same way, a negative appeal of a group of non-identified victims was designed. Instead of intention to donate, I measured intention to sponsor a child on a three-item, seven-point scale: *I would like to sponsor a child; I would like to sponsor a child if I can afford; I intend to get more information about this child sponsorship* ($\alpha = .87$). I also measured positive affect ($\alpha = .94$) and negative affect ($r = .68$) on the same scales used in studies 1 and 2. I measured familiarity with the organization and included it as a covariate.

Results and Discussion

Manipulation check. One-tailed t-tests showed that participants felt more positive affect

($M_{\text{positive appeal}} = 3.83$ vs. $M_{\text{negative appeal}} = 2.90$, $t(130) = 3.13$, $p < .001$) and less negative affect ($M_{\text{positive appeal}} = 5.07$ vs. $M_{\text{negative appeal}} = 5.66$, $t(130) = -1.72$, $p < .05$) from a positive appeal.

Sponsorship. A main effect of appeal-type on intentions to sponsor was marginally significant, showing that a positive appeal was more persuasive than a negative appeal ($F(1, 127) = 3.05$, $p = .083$). A main effect of victim-type (an identified single vs. non-identified group) on intention to sponsor a child was not found ($F(1, 127) < 1.0$). As expected, I found a significant interaction effect between type of charity appeal and victim-type ($F(1, 127) = 11.34$, $p = .001$), which supports hypothesis 4. More specifically, pairwise comparison showed that an identified single victim was more persuasive than a non-identified group of victims for a negative appeal ($M_{\text{identified-single}} = 5.89$, $M_{\text{non-identified groups}} = 4.51$, $F(1, 127) = 7.76$, $p < .01$), and the results were opposite for a positive appeal ($M_{\text{identified-single}} = 5.32$, $M_{\text{non-identified groups}} = 6.30$, $F(1, 127) = 3.95$, $p < .05$), which supports hypotheses 4a and 4b, respectively (see figure 13). Familiarity with the organization had a positive impact on sponsorship intentions ($F(1, 127) = 6.82$, $p = .01$).

“Insert figure 13 about here”

GENERAL DISCUSSION

As expected, the results were consistent with the previous studies regarding the singularity effect and identification effect for a negative appeal, showing that a single or an identified victim was more persuasive than a group of victims. However, the results were quite the opposite for a positive appeal. These findings are important theoretically as well as practically.

The studies showed how singularity effect could be effectively neutralized without decreasing a person's prosocial intentions. One of the ways to prevent singularity effect is to educate people on the implications of imbalanced donation distributions (Small, Lowenstein, and Slovic 2007). This sort of education, however, discourages the overall helping behavior. The present study shows that varying an appeal-type could be an efficient remedy in avoiding singularity effect without compromising the message persuasiveness. Studies 1 and 2 showed no significant main effect of appeal-type on helping intentions. It was found that a positive appeal was only marginally more persuasive than a negative appeal when enhancing sponsorship intentions in study 3. Therefore, varying the appeal-type based on victim-type (a single victim vs. a group of victims) is as effective strategy in increasing message persuasiveness without compromising its effectiveness.

The present study provides practical implications and guidelines for designing a charity appeal in terms of victim-type. In some cases, charities do have to deal with a group of victims (e.g., victims of natural disasters such as hurricanes). In such circumstances, portraying the needs of a group of victims rather than narrowing down to one identified victim should be more effective. The results of the current study further suggest that a positive appeal rather than a negative appeal is more persuasive and could draw more public attention and support. However, a negative appeal is strongly recommended for an identified single victim.

Additionally, the study showed different persuasive mechanisms depending on the appeal-type. For a negative appeal, empathy was a significant variable when enhancing persuasiveness, whereas, positive affect played a significant role in a positive appeal. Thus, when designing a positive or negative charity appeal, managers need to consider these variables.

There are still gaps in our understanding of, in case of a negative appeal, why a group of victims is not as persuasive as a single of victim. One possible explanation could be related to an individual's self-efficacy. According to Bandura (1995, p 2), self-efficacy is defined as "beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations." If people feel that they are capable of helping a victim, they are more likely to get involved. On the other hand, if they feel that the condition of a victim (or victims) is out of their control, they would be less likely to become involved. I surmise that motivations to help in negative mood might be related to self-efficacy. For example, those who are in a negative mood are motivated to help others because they believe that they can make themselves feel better by changing the circumstances of those who are in trouble (Carlson and Miller 1987). The motivations to help victims in trouble require capability, and hence self-efficacy. Based on this premise, I assume that people feel greater self-efficacy when they feel like saving a single victim rather than a group because saving one (versus many) should demand a lower level of capability, other things being equal. On the other hand, those who are in a positive mood are motivated to help others, in order to maintain their current positive mood (Carlson, Charlin, and Miller 1988). In this case, self-efficacy seems unrelated to the motivations to help victims. Thus, self-efficacy could be influential for a negative appeal but not for a positive appeal.

Another potential alternative explanation could be related to psychological reactance. Previous studies show that the message that induces a moderate level of guilt is more persuasive than the one that induces a high level of guilt, since the strong guilt-inducing message can activate psychological reactance (Brehm 1966). I suspect that it is one reason why an identified single victim is more effective than many victims portrayed in a negative appeal. Encountering many victims compared to one victim might arouse a higher level of emotional pressure or

responsibility, leading to psychological reactance. Therefore, psychological reactance could be another potential alternative explanation of the varying effectiveness of appeals with a single victim versus a group of victims. Understanding individuals' prosocial behavior is quite complicated due to the influence of various external (e.g., social pressure, reference groups, social identity, tax deduction) and internal influences (e.g., mood, motivations, perception, personality). All these provide possible avenues for future research for developing more effective charity appeals.

DISSERTATION SUMMARY

I considered two moderators that determine the effectiveness of positive and negative charity appeals. The findings of the first essay suggest that a negative appeal presented against a warm background color and a positive appeal presented against a cold background color enhances prosocial behavior. Also, the underlying process mechanisms are identified. Furthermore, the results demonstrate that a negative appeal that is preceded by the image of a hot object is more effective than one that is preceded by the image of a cold object.

In the second essay, I considered another moderator, victim-type (single vs. group). According to the results, a negative charity appeal is recommended for a single identified victim because the victim evokes more prosocial emotions such as empathy. However, for a group of victims, a positive charity appeal is recommended since perceptions of saving many victims enhance positive affect that leads to greater intention to donate.

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FIGURE 1

Study 2 (Essay 1): The Interaction Effect of Appeal-Type and Color-Type on Donation Behavior

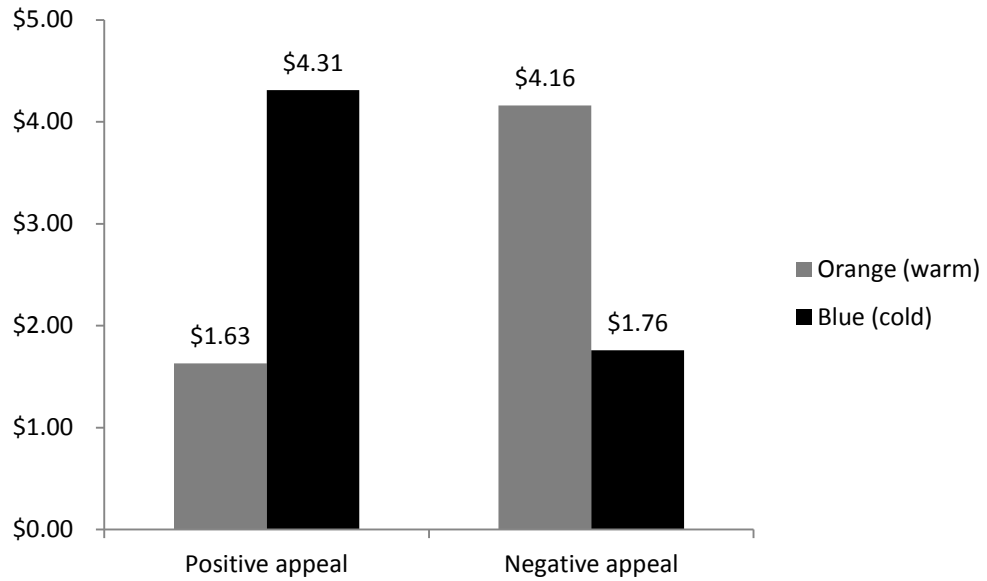


FIGURE 2

Study 3 (Essay 1): The Interaction Effect of Appeal-Type and Color-Type on Intention to Donate

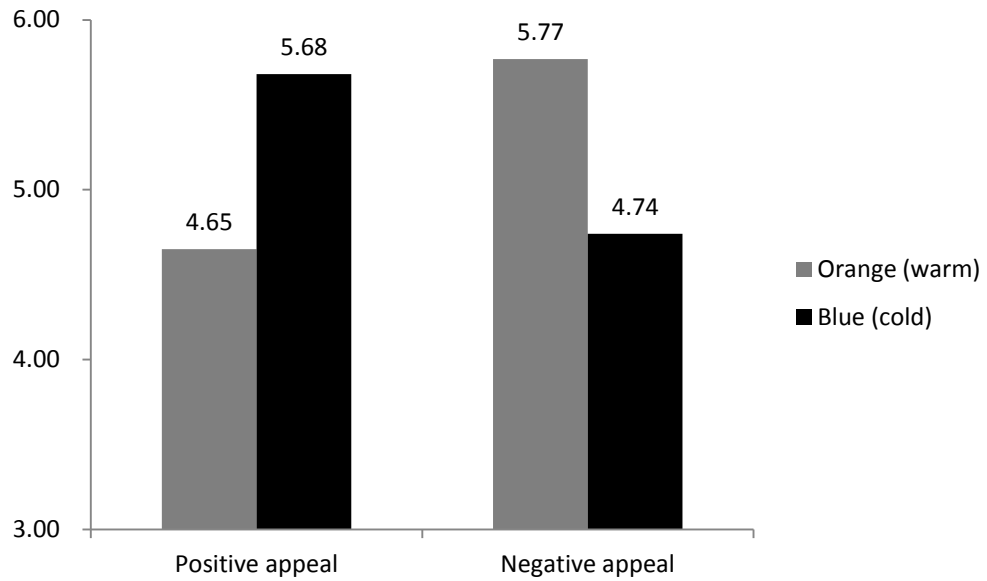


FIGURE 3

Study 3 (Essay 1): Mediation Analysis for a Negative Appeal (N = 61)

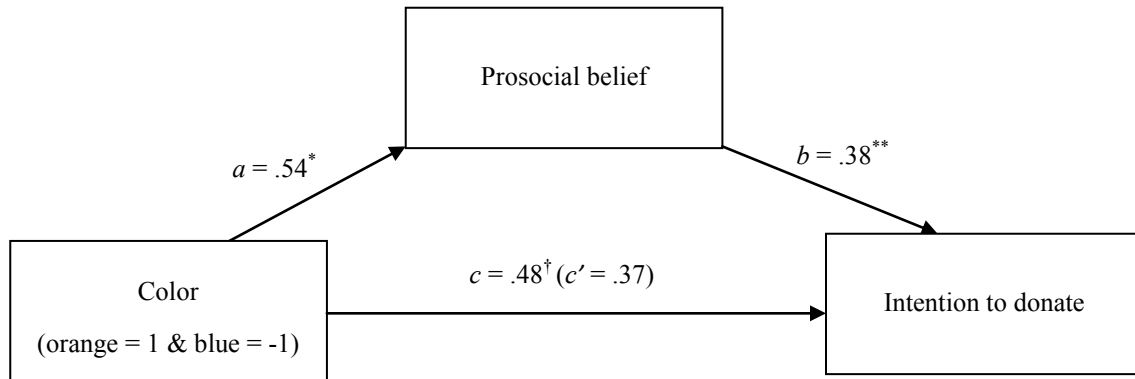
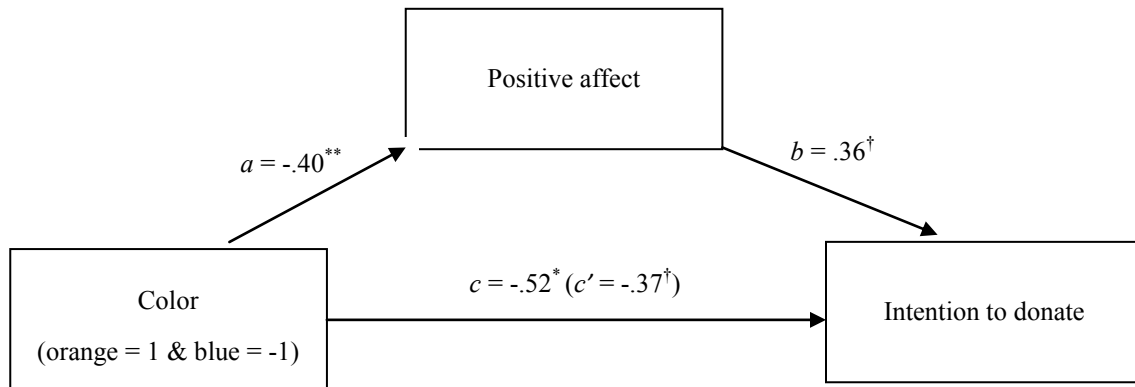


FIGURE 4

Study 3 (Essay 1): Mediation Analysis for a Positive Appeal (N = 62)



Notes: † Significant at the .1 level. $*$ Significant at the .05 level. ** Significant at the .01 level.

FIGURE 5

Study 4 (Essay 1): The Interaction Effect of Appeal-Type and Images of Preceding Object on Intention to Donate

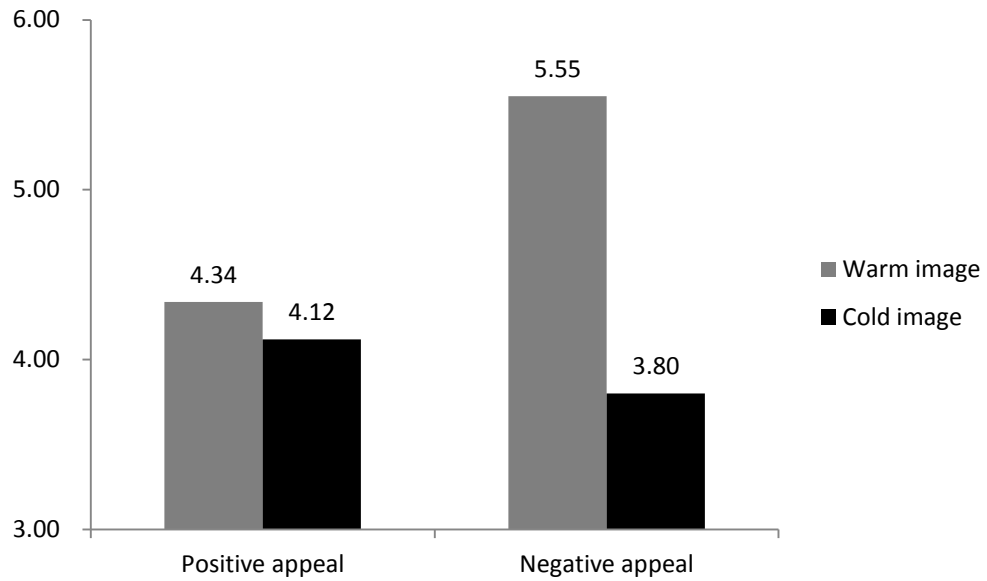
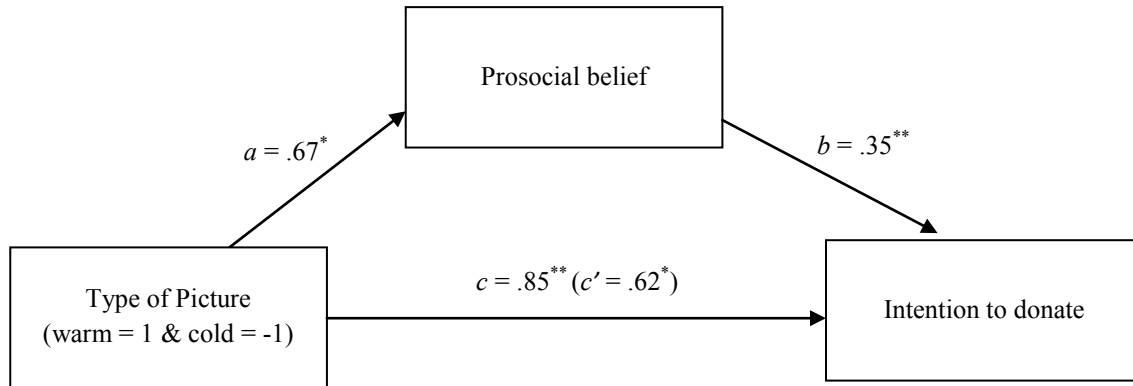


FIGURE 6

Study 4 (Essay 1): Mediation Analysis for a Negative Appeal (N = 57)



Notes: † Significant at the .1 level. * Significant at the .05 level. ** Significant at the .01 level.

FIGURE 7

Study 1 (Essay 2): The Interaction Effect of Appeal-Type and Victim-Type on Intention to Donate

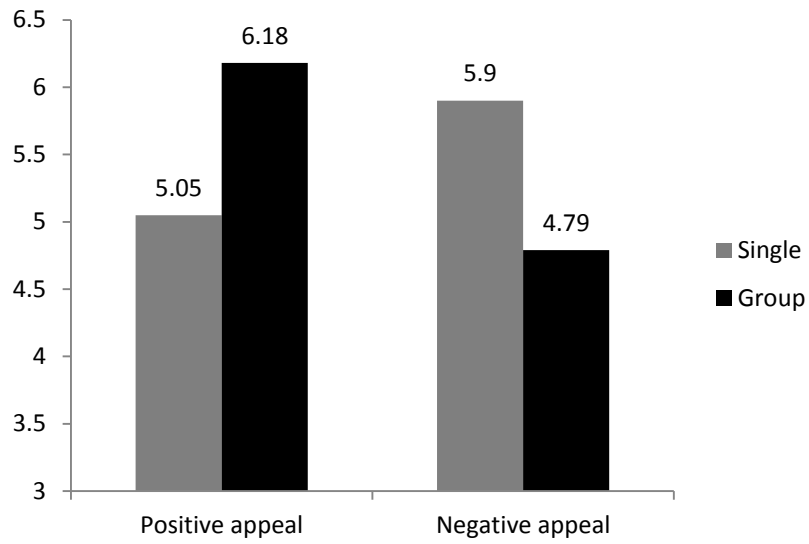


FIGURE 8

Study 2 (Essay 2): The Interaction Effect of Appeal-Type and Victim-Type on Intention to Donate

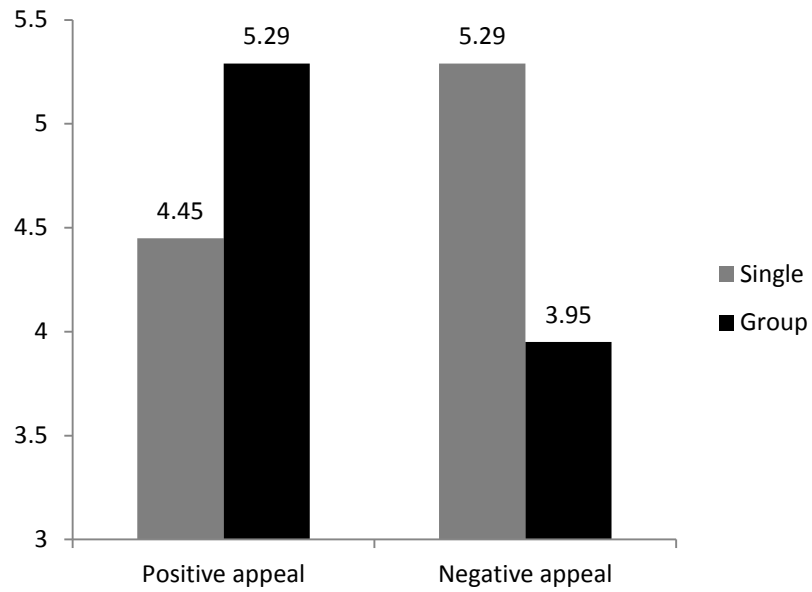


FIGURE 9

Study 2 (Essay 2): The Interaction Effect of Appeal-Type and Victim-Type on Empathy

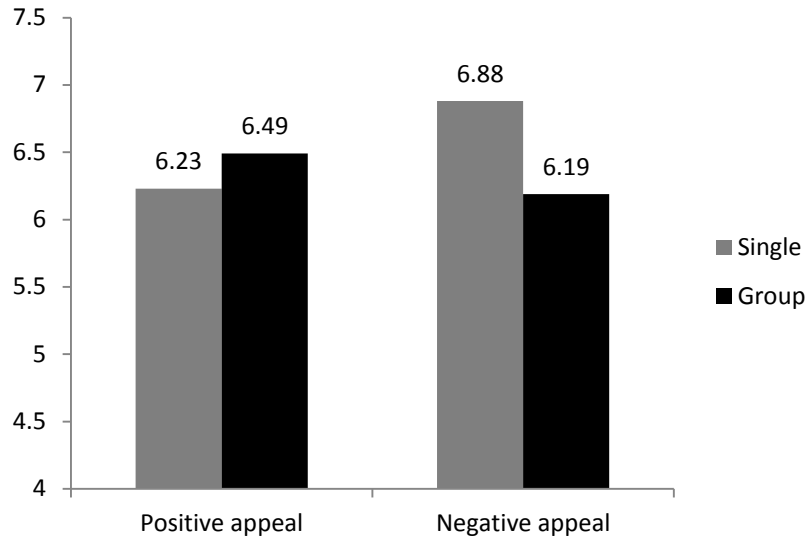
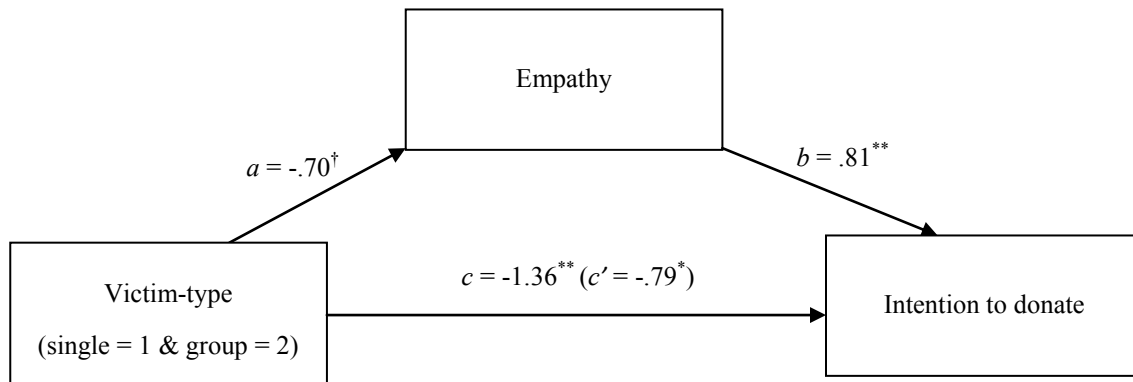


FIGURE 10

Study 2 (Essay 2): Mediation Analysis for a Negative Appeal (N = 81)



Notes: † Significant at the .1 level. * Significant at the .05 level. ** Significant at the .01 level.

FIGURE 11

Study 2 (Essay 2): The Interaction Effect of Appeal-Type and Victim-Type on Positive Affect

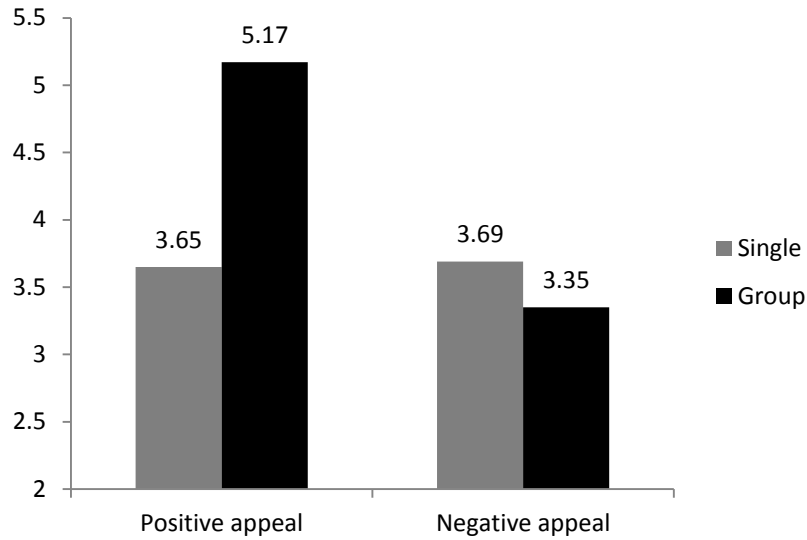
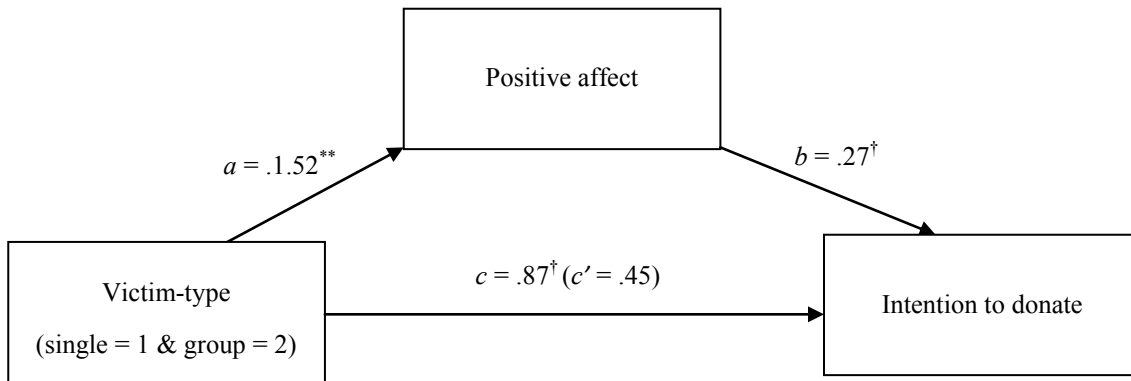


FIGURE 12

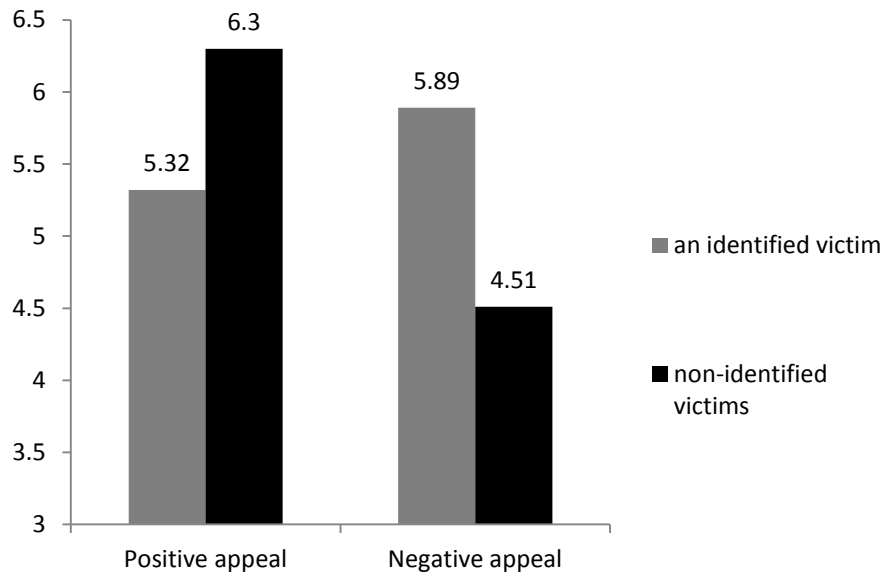
Study 2 (Essay 2): Mediation Analysis for a Positive Appeal (N = 73)



Notes: † Significant at the .1 level. * Significant at the .05 level. ** Significant at the .01 level.

FIGURE 13

Study 3 (Essay 2): The Interaction Effect of Appeal-Type and Victim-Type on Intention for Child Sponsorship



APPENDIX 1:

Marketing Studies on Helping Behavior (Appearing in major marketing journals since Bendapudi, Singh, and Bendapudi 1996)

	Authors	Focus	Findings
For-profit organization–charity collaboration	Strahilevitz and Myers (1998)	Bundling of products with charity incentives	Significant differences in effectiveness of charity incentives bundled with hedonic vs. utilitarian products
	Hoeffler and Keller (2002)	Conceptual framework	Brand equity building with corporate societal marketing programs.
	Olsen, Pracejus and Brown (2003)	Cause related marketing	Cause-related marketing donations, expressed as a percentage of profit, results in upward bias of consumer estimation of donation amount.
	Lichtenstein, Drumwright and Braig (2004)	Corporate characteristics	Perceived corporate social responsibility significantly influences customer-corporate identification and donations to corporate-sponsored non-profits.
	Arora and Henderson (2007)	Type of appeal: Sales promotions involving charity causes	Charity donations embedded in product offers significantly and asymmetrically enhance brand perceptions and are more effective than price discounts.
	Henderson and Arora (2010)	Purchase-contingent donations to social cause	Multi-category embedded premium promotions in different branding environments have a differential impact on brand attractiveness and are more effective than price promotions.
	Winterich and Barone (2011)	Donor characteristics	Significant differences exist consumer preferences for donations versus discounts based on multiple social

			identities.
Multistage solicitation requests	Reed, Aquino and Levy (2007)	Donor characteristics - Moral identity	Significant differences in consumers' preference to donate time versus money, depending on their moral identity.
	Liu and Aaker (2008)	Type of appeal - Time-Ask effect	Requests to donate time versus money activate different mindsets and affect consumers' willingness to donate to a charity.
	Fennis, Janssen and Vohs (2009)	Donor characteristics	Self-regulatory resource depletion significantly affects compliance with charity requests that follow the foot-in-the-door technique.
Solicitation in person or group setting	Shang, Reed and Croson (2008)	Donor characteristics	Donation to nonprofits differs based on consumers' social identity and behaviors of others.
	White and Peloza (2009)	Type of appeal - Self vs. other	Other-benefit and self-benefit appeals are differentially effective in different public accountability situations.
	Lee and Lim (2010)	Donor and Source characteristics	Significant differences in willingness to donate to a charity based on consumers' emotional receptivity and emotional intensity of the presenter.
	Kurt, Inman and Argo (2011)	Donor characteristics	The presence of friends differentially influences agency- and communion-oriented consumers' donation to charity.
Targeting specific audience segments	Lwin, Williams and Lan (2002)	Donor characteristics	Willingness to donate organs varies based on a person's altruistic values, factual knowledge, and spiritual beliefs regarding organ donation.
	Arnett, German and Hunt (2003)	Donor characteristics	Donation to a higher education-related nonprofit

		is influenced by relationship-inducing factors and identity salience.
	Khan and Dhar (2006)	Donor characteristics Donation to charity depends on whether one has committed a prior altruistic act.
	Small and Simonsohn (2008)	Donor characteristics Significant differences exist in donations based on whether a potential donor shares a close relationship with someone similar to the charity client facing misfortune.
	Winterich, Mittal and Ross (2009)	Donor characteristics Significant differences exist between donations to in- and out-group charities based on a person's moral and gender identity and relationship proximity to the donation group.
	Puntoni, Sweldens and Tavassoli (2011)	Donor characteristics Donation to cancer research varies depending on whether gender identity is made salient or not.
	Finkelstein and Fishbach (2012)	Donor characteristics Significant differences exist based on expertise for intention to donate to environmental charities. Experts agree to donate more in response to negative feedback; novices agree to donate more in response to positive feedback.
	Finnel, Reed and Aquino (2011)	Donor characteristics U.S. residents to whom a U.S. identity is more salient than their moral identity are less willing to support foreign charities.
Prior manipulation required	Labroo and Mukhopadhyay (2009)	Donor characteristics Donation of time or money to disturbing charities is based on peoples' beliefs about emotion transience and whether they engage in affect regulation.

	Hung and Wyer (2009)	Type of appeal: Self as victim or donor	Significant differences exist in donations in response to charity ads if the appeals make people imagine the situation from a victim's perspective or think of themselves as potential donors when reading the appeal.
	Liu and Gal (2011)	Type of appeal: Advice solicitation	Donations are higher among people who previously have been asked to give advice to a charity, compared with those who have not.
	Zhou, Wildschut, Sedikides, Shi and Feng (2012)	Type of appeal: Nostalgic appeals	Inducing a sense of nostalgia before exposing participants to a charity appeal promotes greater intentions and donation behavior by generating empathy.
Incorporation of tax information	Pelozo and Steel (2005)	Type of appeal: Tax deductibility of donations	Information on the tax deductibility of donations significantly impacts willingness to donate for both high- and low- income consumers.
Sophisticated production element required	Peck and Wiggins (2006)	Type of appeal: Incorporating specific physical texture to appeal	Intention to donate time or money is influenced by whether the appeal incorporates elements of touch and a person's motivation to touch for fun.
Model development	Raghubir, Roberts, Lemons and Winer (2010)	AGREE model	Theoretical framework to design a metric system for organizations to measure corporate performance on social responsibility activities.
	Diepen, Donkers and Franses (2009)	Dynamic direct mailing response model	Significant dynamic and competitive effects exist in responses to charity solicitations via direct mail as a function of past events.
Exposure to message	Spangenberg, Sprott,	Type of appeal: Self-prophecy	Donation ads framed to make people predict

Grohmann and Smith (2003)		whether engaging in socially helpful behavior significantly enhances such behavior.
Fisher, Vandebosch and Antia (2008)	Type of appeal: Self vs. other	Televised fund-raising appeals are more effective when they highlight other-benefits and evoke negative feelings rather than highlight self-benefits and evoke positive feelings.
Small and Verrochi (2009)	Type of appeal: Nature of image	Donation likelihood significantly varies based on whether ads have pictures of sad victims or happy/neutral victims.
Shanahan, Hopkins and Carlson (2010)	Type of PSA: Source factors	Ads using pictures of actual victims rather than actors are more effective in inducing intention to donate and building positive perceptions of social responsibility for the nonprofit.
Kemp and Kopp (2011)	Type of appeal: Alpha (approach) and Omega (avoidance) persuasion	Ads promoting funeral planning vary in overcoming resistance and inducing behavior depending on whether they use approach or avoidance framing and whether they use base rate information.

APPENDIX 2:

Essay1: Study 1A and Study 1B (Personality Items)

Items related to warm-cold dimension

- Ungenerous (1) ----- (2) ----- (3) ----- (4) ----- (5) ----- (6) ----- (7) Generous
- Unhappy (1) ----- (2) ----- (3) ----- (4) ----- (5) ----- (6) ----- (7) Happy
- Irritable (1) ----- (2) ----- (3) ----- (4) ----- (5) ----- (6) ----- (7) Good-natured
- Anti-social (1) ----- (2) ----- (3) ----- (4) ----- (5) ----- (6) ----- (7) Sociable
- Selfish (1) ----- (2) ----- (3) ----- (4) ----- (5) ----- (6) ----- (7) Caring

Items unrelated to warm-cold dimension

- Talkative (1) ----- (2) ----- (3) ----- (4) ----- (5) ----- (6) ----- (7) Quiet
- Unattractive (1) ----- (2) ----- (3) ----- (4) ----- (5) ----- (6) ----- (7) Attractive
- Serious (1) ----- (2) ----- (3) ----- (4) ----- (5) ----- (6) ----- (7) Carefree
- Weak (1) ----- (2) ----- (3) ----- (4) ----- (5) ----- (6) ----- (7) Strong
- Dishonest (1) ----- (2) ----- (3) ----- (4) ----- (5) ----- (6) ----- (7) Honest

APPENDIX 3: QUESTIONS

Essay 1: Study 3

How familiar are you with the organization?

(1) Not at all	(2) Unfamiliar	(3) Not sure	(4) Familiar	(5) Very much
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When you read the flyer, please rate the emotion that best describes how you felt.

- Pleased: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Excited: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Unhappy: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Relaxed: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Stimulated: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Calm: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Angry: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Remorseful: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Sad: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Guilty: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much

Now, we will ask your opinions about charity activities. Please rate how much you agree with each statement. Please respond to every statement.

- There is not much any one person can do about the starvation and famine in the world.
- The helping efforts of one person are useless as long as other people refuse to join.

(1) Strongly disagree	(2) Disagree	(3) Somewhat disagree	(4) Neither agree nor disagree	(5) Somewhat agree	(6) Agree	(7) Strongly agree
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Now, we would like you to tell us your opinions about the flyer. Please respond to every statement.

- How likely are you to participate in donation in the future?
- I would like to make a donation to this organization in the future.
- I intend to get more information about how I can participate in donation.

Very unlikely (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very likely

Essay 2: Study 2

When you read the flyer, please rate the emotion that best describes how you felt.

- Sympathetic: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Compassionate: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Soft-hearted: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Tender: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Happy: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Pleasant: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Excited: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Remorseful: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much
- Sad: Not at all (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very much

Now, we would like you to tell us your opinions about the flyer. Please respond to every statement.

- After seeing the flyer, I want to make a donation.
- I would like to make a donation to this organization in the future.
- Are you more likely to donate after reading this flyer than before?

Very unlikely (1) ---- (2) ---- (3) ---- (4) ---- (5) ---- (6) ---- (7) ---- (8) ---- (9) Very likely

How familiar are you with the organization?

(1) Not at all	(2) Unfamiliar	(3) Not sure	(4) Familiar	(5) Very much
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