

## The relation of approach/avoidance motivation and message framing to the effectiveness of charitable appeals

Esther S. Jeong<sup>1</sup>, Yue Shi<sup>1</sup>, Anna Baazova<sup>1</sup>,  
Christine Chiu<sup>1</sup>, Ashley Nahai<sup>1</sup>, Wesley G. Moons<sup>2</sup>, and  
Shelley E. Taylor<sup>1</sup>

<sup>1</sup>University of California, Los Angeles, CA, USA

<sup>2</sup>University of California, Davis, CA, USA

This study tested whether congruency between approach/avoidance dispositional motivation and message framing (gain, loss) affects receptivity to appeals for charitable donations. Participants read gain-framed and loss-framed messages regarding funding needs and completed the BIS vs. BAS scale assessing dispositional motivation. Approach-oriented people were more persuaded by gain-framed messages, and avoidance-oriented people were more persuaded by loss-framed messages. The results thus extend the congruency effect beyond self-relevant messages to include other-oriented messages as well. These findings suggest that real-world charitable appeals will be more effective to the degree that they are tailored to match the motivational dynamics of the target audience.

**Keywords:** Approach/avoidance; Message framing; Altruism; Persuasive.

Nearly sixty-two million Americans engaged in altruistic volunteering activities in 2008 (U.S. Corporation for National Community Service, 2009), and in that same year, Americans gave \$307.65 billion in financial contributions (Giving USA, 2009). Why would people sacrifice their time and money to help others? Theories of altruism suggest that people make sacrifices in part to gain respect and be evaluated as praiseworthy; economists argue that purposeful altruism leads to increased human capital that enhances individual and community wealth; evolutionary psychologists

---

Address correspondence to: Shelley E. Taylor, Department of Psychology, University of California, Los Angeles, 1282A Franz Hall, Los Angeles, CA 90095, USA.  
E-mail: [taylor@psych.ucla.edu](mailto:taylor@psych.ucla.edu)

speculate that human beings evolved in a competitive world where cooperative behavior was necessary for survival (Lipford & Yandle, 2009). But responding to charitable appeals also depends critically on how requests for aid are presented.

The immediate pursuit of pleasure and avoidance of pain are considered to be basic guides to human behavior (Elliot, 2006; Gray, 1990). Human beings automatically evaluate most encountered stimuli on positive and negative dimensions, which can evoke approach or avoidant behavioral predispositions (Bargh, 1997). Theories of motivation maintain that there are two distinct systems involved in regulating behavior. The first is the behavioral activation system, or BAS (Gray, 1990). Individuals with high BAS sensitivity are approach-oriented and respond strongly to incentives, such as signals of reward, non-punishment, and escape from punishment (Carver, Sutton, & Scheier, 2000). The other regulatory system is the behavioral inhibition system, or BIS (Gray, 1990). Individuals with high BIS sensitivity are avoidance-oriented and respond strongly to signs of threat, such as signals of punishment and novelty (Carver et al., 2000). Although most people have both BAS and BIS sensitivity, many people show a dispositional sensitivity to be high BAS or high BIS.

These dispositional motivations may shape receptivity to persuasive messages. Specifically, approach-oriented people appear to be more responsive to gain-framed messages; that is, messages that are phrased in terms of the positive outcomes they may create, and less persuaded by messages that emphasize behaviors that may result in preventing negative outcomes. People with high BIS sensitivity show the opposite pattern: enhanced sensitivity to loss-framed messages and reduced sensitivity to gain-framed messages. In a test of this hypothesis, Mann, Sherman, and Updegraff (2004) presented participants with persuasive messages designed to induce them to floss their teeth more regularly; the messages were either gain-framed and stressed the advantages of flossing or loss-framed and stressed how flossing could prevent the occurrence of dental problems. Participants then completed an assessment of BIS vs BAS (Carver & White, 1994). Participants were most persuaded by the message that was congruent with their dispositional orientation. Subsequent studies have replicated this differential sensitivity of people high in BIS vs BAS sensitivity to loss-framed versus gain-framed messages, respectively (Gerend & Shepherd, 2007; Sherman, Updegraff, & Mann, 2008).

In the present study, we extended these findings to receptivity to charitable messages. Unlike previous studies of the congruency effect, which have demonstrated relevance to personal health behaviors (Gerend & Shepherd, 2007; Sherman et al., 2008), charitable messages concern outcomes directed to other people, rather than the self. Potentially,

congruency effects may have applicability to the design of charitable appeals.

## METHOD

### Participants

A total of 34 students at a large Western university (26 women, 8 men, age 19 to 36 years) participated in a  $2 \times 2$  person-by-treatment quasi-experiment with approach-avoidance motivation (BAS, BIS), as a dispositional between subjects variable and message frame (gain, loss), as a repeated measure.

### Procedure

Participants were told that the study concerned school funding and that the investigators wanted to know what kinds of messages are effective in convincing people to give donations to schools. Participants then read four messages, two gain-framed and two loss-framed, that made pleas for funding projects at a university. For example, a gain-framed scenario read: "The library at Jefferson University is in need of funding. With funds, it will be able to stay open longer hours for student use and expand the book collection." An example of a loss-framed scenario was, "The cafeteria at Lincoln University is in need of funding. Without funds, it will have to cut down on menu items and increase food prices." The four university projects that were said to require funding were the cafeteria, the computer laboratory, the gymnasium, and the library, and a gain- and a loss-framed version of the message was constructed for each. Presentation of messages was counterbalanced using a Latin square, such that participants read a message about each of the four needy aspects of the universities and read two gain- and two loss-framed appeals.

After each message participants were asked: How effective is this appeal? How successful would this appeal be in getting people to donate? How likely would you be to donate after reading this appeal? How likely do you think others will be to donate after this appeal? How important do you think this appeal is? All questions were rated on 7-point Likert-type scales with labeled endpoints. These five questions were combined into a single index of effectiveness of appeal ( $\alpha = .719$ ). Participants were then told to imagine that "You have \$20 to donate. How much money would you be willing to donate?"

Following completion of the rating task, participants completed the Carver and White (1994) BIS vs BAS Assessment Scale. An example of a question that assesses BIS is: "I feel worried when I think I have done poorly at something" and an example of a BAS question is: "When I see an opportunity for something I like, I get excited right away." Each item was

answered on a scale of 1 to 5, with labeled endpoints. BIS and BAS dispositions were created by dividing the total score of the participant on BIS (or BAS) by the maximum score they could receive. Participants were classified into BAS if their BAS sensitivity was greater than their BIS sensitivity ( $N=23$ ), and classified as BIS ( $N=11$ ) if the reverse was the case. All participants then completed a brief demographics questionnaire and were debriefed.

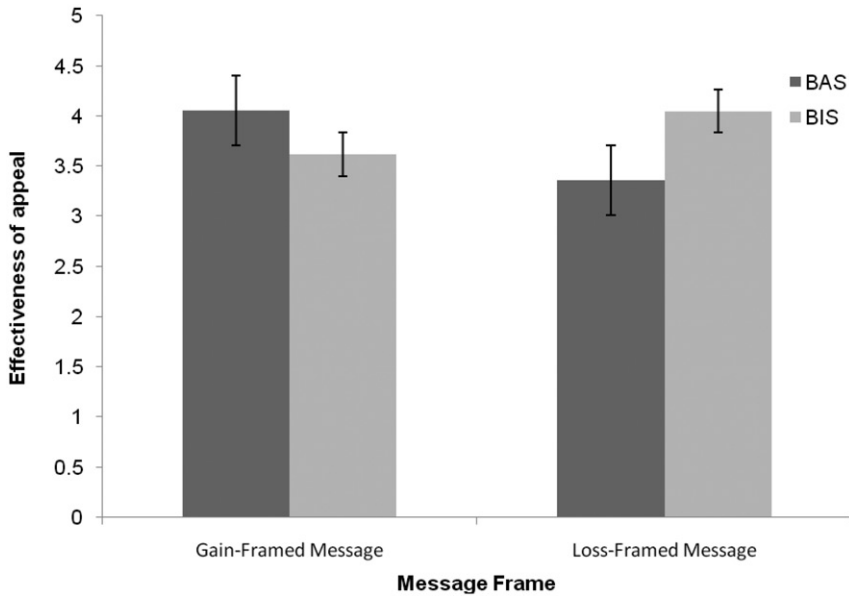
## RESULTS

### Preliminary analyses

Data were analyzed using a  $2 \times 2$  analysis of variance with approach/avoidance motivation and message frame (gain/loss) as the two independent variables. There was no main effect of BIS ( $M=3.71$ ,  $SD=1.12$ ) and BAS ( $M=3.83$ ,  $SD=1.34$ ),  $F(1, 33)=0.28$ ,  $p=.60$ ,  $\eta^2=.008$  on effectiveness of the appeal. For the amount of money one would donate, there was also no significant difference between BAS ( $M=7.33$ ,  $SD=6.57$ ), and BIS ( $M=6.98$ ,  $SD=7.85$ ),  $F(1, 33)=0.40$ ,  $p=.53$ ,  $\eta^2=.012$ . The ANOVAs also revealed no significant main effects for message frame. Specifically, there was no significant main effect between gain-frame ( $M=3.84$ ,  $SD=1.25$ ) and loss-frame ( $M=3.70$ ,  $SD=1.04$ ),  $F(1, 33)=0.17$ ,  $p=.68$ ,  $\eta^2=.020$ . For the amount of donations, there was no significant difference between gain-frame ( $M=6.89$ ,  $SD=5.69$ ) and loss-frame ( $M=7.41$ ,  $SD=5.63$ ),  $F(1, 33)=0.04$ ,  $p=.85$ ,  $\eta^2=.001$ .

### Test of the congruency hypothesis

The test of the congruency hypothesis predicts an interaction between approach/avoidance motivation and message frame. The predicted interaction was found. BAS participants rated gain-framed appeals ( $M=4.06$ ,  $SD=1.28$ ) as more effective than loss-framed appeals ( $M=3.36$ ,  $SD=1.20$ ), and BIS-oriented people rated loss-framed appeals ( $M=4.04$ ,  $SD=0.68$ ) as more effective than gain-framed appeals ( $M=3.62$ ,  $SD=1.15$ ),  $F(1, 33)=4.90$ ,  $p=.03$ ,  $\eta^2=0.129$  (see Figure 1). Similarly, when intended donations were analyzed, BAS-oriented participants indicated that they would donate more money in response to gain-framed appeals ( $M=8.00$ ,  $SD=5.56$ ) than in response to loss-framed appeals ( $M=6.65$ ,  $SD=5.23$ ). BIS participants, by contrast, said they would donate more money in response to loss-framed appeals ( $M=8.18$ ,  $SD=5.96$ ) than in response to gain-framed appeals ( $M=5.79$ ,  $SD=5.65$ )  $F(1, 33)=5.13$ ,  $p=.03$ ,  $\eta^2=.135$  (see Figure 2). Thus the results support the hypothesis that approach-oriented people are more persuaded by gain-framed



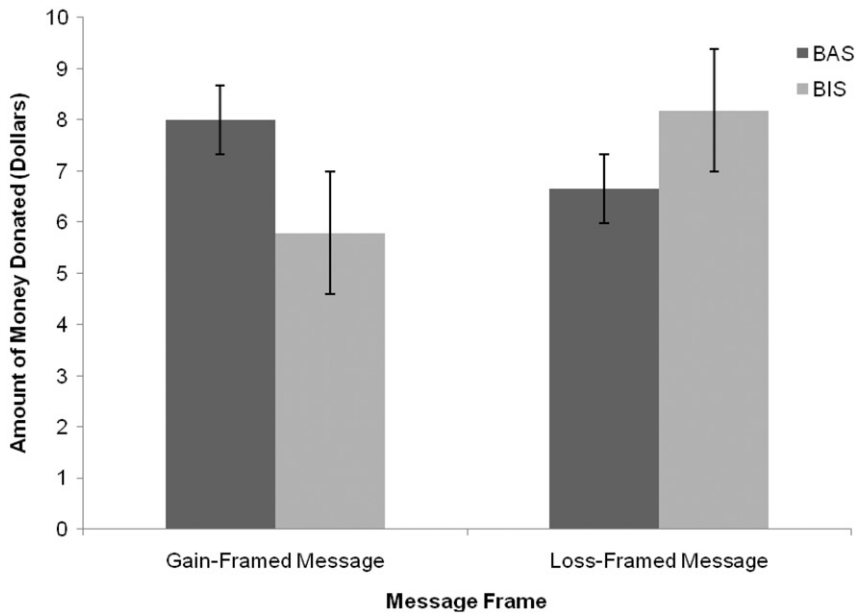
**Figure 1.** Responsiveness to monetary appeals as a function of message frame and approach/avoidance motivation. Bars represent  $\pm 1$  standard error.

charitable appeals, and avoidance-oriented people are more persuaded by loss-framed charitable appeals.<sup>1</sup>

## DISCUSSION

The results indicate that people are more responsive to charitable appeals that are tailored to fit their motivational orientation. As predicted, approach-oriented people perceived gain-framed messages to be more effective than loss-framed messages, and avoidance-oriented people perceived loss-framed messages to be more effective than gain-framed messages. This receptivity was also reflected in the amount of donation they reported they would be willing to make. People indicated that they would be willing to donate more money in response to messages that were congruent with their dispositional motivation. As such, the findings of congruency between dispositional motivational orientation and message framing extend

<sup>1</sup> Regression analyses using the continuous measure of BIS and BAS replicated these findings such that more BAS-oriented people found gain-framed messages more effective and were willing to donate more in response to gain-framed messages relative to loss-framed messages, with the reverse being true of more BIS-oriented people.



**Figure 2.** Amount of money people would donate as a function of message frame and approach/avoidance motivation. Bars represent  $\pm 1$  standard error.

beyond the self-oriented behaviors that have previously demonstrated a congruency effect (Mann et al., 2004; Sherman et al., 2008) to include other-oriented behaviors as well. The findings are thus consistent with Carver and colleagues' theoretical arguments regarding BIS vs BAS sensitivity and with previous theory and research supporting the congruency hypothesis (Mann et al., 2004; Sherman et al., 2008).

There are some limitations of the present study. They include the relatively small sample size, the disproportionate representation of women, the somewhat restricted age range of the sample, and the fact that monetary donations were hypothetical rather than actual. Advantages include the fact that the sample was highly diverse ethnically, and therefore the predicted interaction was found in spite of a heterogeneous sample.

What are the implications of these results for designing charitable appeals? People are somewhat more likely to be BAS than BIS, and this was true in the present study as well. On the whole, then, the implication is that a charitable appeal aimed at the general population should be gain-framed. However, if particular donors are targeted, it would be useful to have information about their relative BAS vs BIS sensitivity and design persuasive personal appeals around those findings. For example, a

questionnaire might be administered to targeted donors or large donors for the purpose of recording personal goals for their charitable contributions and questions assessing motivational orientation might covertly be inserted. Charities often experiment with advertising techniques to convince people to support their causes with the goal of targeting the right group of people with the right kind of message to lead to effective results. The present results are therefore potentially helpful in the effective design of such appeals.

Manuscript received 10 June 2010

Manuscript accepted 6 September 2010

First published online 23 November 2010

## REFERENCES

- Bargh, J. A. (1997). The automaticity of everyday life. In R. S. Wyer Jr. (Ed.), *The automaticity of everyday life: Advances in social cognition* (Vol. 10, pp. 1–61). Mahwah, NJ: Lawrence Erlbaum Associates Inc.
- Carver, C. S., Sutton, S. K., & Scheier, M. F. (2000). Action, emotion, and personality: Emerging conceptual integration. *Personality and Social Psychology Bulletin*, *26*, 741–751.
- Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology*, *67*, 319–333.
- Elliot, A. J. (2006). The hierarchical model of approach-avoidance motivation. *Motivation and Emotion*, *30*, 111–116.
- Gerend, M. A., & Shepherd, J. E. (2007). Using message framing to promote acceptance of the human papillomavirus vaccine. *Health Psychology*, *26*, 745–752.
- Giving USA (2009). *The annual report on philanthropy for the year 2008*. Glenview, IL: Giving USA Foundation.
- Gray, J. A. (1990). Brain systems that mediate both emotion and cognition. *Cognition Emotion*, *4*, 269–288.
- Lipford, J. W., & Yandle, B. (2009). The determinants of purposeful voluntarism. *Journal of Socio-economics*, *38*, 72–79.
- Mann, T., Sherman, D., & Updegraff, J. (2004). Dispositional motivations and message framing: A test of the congruency hypothesis in college students. *Health Psychology*, *23*, 330–334.
- Sherman, D. K., Updegraff, J. A., & Mann, T. (2008). Improving oral health behavior: A social psychological approach. *Journal of the American Dental Association*, *139*, 1382–1387.
- U.S. Corporation for National Community Service. (2007). *Volunteering in America research highlights*. Retrieved May 7, 2010 from: <http://www.volunteeringinamerica.gov/assets/resources/VolunteeringInAmericaResearchHighlights.pdf>

Copyright of Social Influence is the property of Psychology Press (UK) and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.