"I Lose" "I Gain" vs. "They Lose" "They Gain": The Influence of Message Framing on Donation Intentions in Disaster Fundraising

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ABSTRACT

Grounded in the 2018 California Camp Fire context, this study explores how message framing in charitable appeals influences individuals' donation intentions. A 2 (first-person imagery perspective vs. third-person imagery perspective) × 2 (gain frame vs. loss frame) between-subject online experiment was conducted via Amazon's MTurk ($n = 475$). Results showed that gain/loss framing and imagery perspectives interactively influenced participants' donation intentions. Specifically, when a message is loss-framed, a first-person imagery perspective ("I lose") message is more effective than a third-person imagery perspective ("they lose") message in enhancing participants' perceived issue relevance, induced empathy, and donation intention. In addition, when the message is framed with a third-person imagery perspective, a gain-framed ("they gain") message is more persuasive than a loss-framed ("they lose") message.

KEYWORDS: gain vs. loss framing, first vs. third-person imagery perspective, donation, disaster recovery, prosocial behavior

Wildfire disasters have become emerging global issues, occurring in Africa, Southeast Asia, and North America. In the United States, every year since 2000, an average of 72,400 wildfires burned an average of 7.0 million acres annually (Congressional Research Service, 2019). The prevalence of wildfire disasters can disrupt the functioning of society and cause calamitous impacts

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on the economy and human well-being. The 2018 Camp Fire, the deadliest and most destructive wildfire in California history, burned an area of 153,336 acres, destroyed 18,804 structures, caused economic losses of $16.5 billion, and killed more than 85 civilians (BBC, 2018).

During natural disasters, voluntary funding from NGOs, private sectors, and individual donors is a vital resource for communities to recover from disasters (Toyasaki & Wakolbinger, 2014). Charitable giving is often the quickest response to sudden disaster crises and provides timely resource assistance for survivors to rebuild their homes and for communities to strengthen resilience (Wei et al., 2019). Acknowledged as major service providers during a disaster, NGOs help to develop a sustainable community by delivering timely assistance to disaster victims and building networks with government, media, and other stakeholders (Nikkhah & Redzuan, 2010).

The fundraising capacity is essential for organizations to maintain sustainable developments and perform social responsibilities, which further makes the society fully functioning. However, charity fundraising has become much more competitive in the United States, given the increased number of charity organizations. According to the National Center for Charitable Statistics (2019), more than 1.5 million NGOs were registered in the United States. The growing number of NGOs in the United States has increased the competition for government funding (Castaneda et al., 2008). Individual donors comprise a significant portion of NGO funding. According to a report by the National Philanthropic Trust (2019), the number of individual donor-advised fund accounts at National Charities has increased from 129.34k in 2014 to 593.36k in 2018 in the United States. Therefore, attracting private donations could be a useful approach for NGOs to mobilize resources.

To mobilize resources in times of disasters, it is essential to understand how to design effective messages that persuade people to engage in prosocial behaviors. Specifically, the current study aims to examine the persuasiveness of two framing strategies (i.e., gain- vs. loss-framing and first- vs. third-person imagery perspective) in promoting people's donation intentions, grounded in the context of the 2018 Camp Fire.

Literature Review

First- vs. Third-Person Imagery Perspective

Persuasive messages can ask recipients to visualize an event from different perspectives. In *a first-person imagery perspective*, individuals visualize the scene from an internal actor's perspective, imagining that they will experience the consequences themselves. In *a third-person imagery perspective*, individuals visualize the scene from an external observer's perspective, imagining other people will suffer the consequences (Ostinelli & Bockenholt, 2009; Vasquez & Buehler, 2007).

Scholars that have been interested in examining the effect of imagery perspectives on persuasion have based their research on the construal level theory. Construal Level Theory (CLT) proposes that people use higher levels of construal (i.e., abstract mental representations) to represent an object as the psychological distance from an object increases (Trope & Liberman, 2010). When thinking of distant targets (e.g., others), people often perceive a larger psychological distance than thinking of proximal targets (e.g., self). Based on CLT, a third-person imagery perspective imposes more psychological distance than a first-person imagery perspective; therefore, will induce a more abstract mental representation when individuals imagine the scenario; conversely, a first-person imagery perspective will trigger a more concrete mental representation (Vasquez & Buehler, 2007).

The perspectives that people take can influence their mental representations (Ruby & Decety, 2004), attitude (Vorauer & Sasaki, 2014), and behavior change (Rennie et al., 2014a). For example, Libby et al. (2005) found that imagining performing an activity from a third-person perspective produced less vivid mental reports than imagining an activity from a first-person perspective. Through two experiments, Rennie et al. (2014a) found that a first-person imagery perspective was more effective than a third-person imagery perspective in persuading people to donate blood and quit smoking. Rennie et al. (2014a) argued that visualizing engaging in a behavior from a first-person imagery perspective produced a more concrete image than a third-person imagery

perspective, which will enhance their motivation to perform this behavior. Although it seems that first-person imagery perspectives are more efficacious than third-person imagery perspectives in persuasive settings, it is unclear why perspectives have different impacts. Furthermore, scholars argue that the communication scholarship has been focused on how media represent suffering yet often fails to explain how to engage the public and connect the publics with distant others (Seu & Orgad, 2017). To fill these gaps, the first objective of this study is to examine how imagery perspectives influence individuals' donation intentions and to explore the underlying psychological process.

Imagery Perspectives on Perceived Relevance

Perspectives can influence individuals' perceived relevance of the situation (Hoever et al., 2012). Messages framed with a first-person imagery perspective seem to increase recipients' perceived relevance compared to messages with a third-person imagery perspective (Libby et al., 2011). For example, Marx and Stapel (2006) found that people who were asked to think about a stereotyped target from a first-person imagery perspective perceived the situation as more self-relevant and reported more threat than those who were asked to think from a third-person imagery perspective. According to the construal level theory, proximal situations are more likely to be perceived as being closer or more relevant to oneself (Trope & Liberman, 2010). With a first-person imagery perspective, people think as if they are the ones who are experiencing the event, and they perceive a smaller social distance compared to when thinking from a third-person imagery perspective. Therefore, they will feel more proximal to the situation, have more vivid mental representations, and perceive the situation as more self-relevant. Hence, we hypothesize that:

> H1: Individuals who are exposed to a first-person imagery perspective message will report higher perceived relevance of wildfire than those who are exposed to a third-person imagery perspective message.

Imagery Perspectives on Empathy

Empathy refers to "the capacity to understand and respond to the unique affective experiences of another person" (Lamm et al., 2007, p. 42). Previous studies found that first- and third-person imagery perspectives produce different levels of empathy. When prior studies have used a first-person imagery perspective, individuals have been asked to imagine themselves in another's place and to think about how they, themselves, would feel; this perspective was believed to trigger more empathy than a third-person imagery perspective message that asked individuals to think as an observer (Vorauer & Sasaki, 2014). For example, Batson et al. (1997) found that people who were asked to imagine how they would feel in another person's situation reported experiencing more empathetic emotions compared to people who were asked to remain objective. Similarly, Lamm et al. (2007) found when watching video clips of patients, people who were instructed to take a first-person imagery perspective (i.e., imagine themselves to be in the patients' situations) reported higher empathetic concern than those who were instructed to imagine the feelings of the patient. When thinking from a first-person imagery perspective, individuals may experience feelings of relevance with message characters and feel as though they are living the experience that is being shared, which further increases empathy (Chen et al., 2017). Therefore, we hypothesized that:

> H2: Individuals who are exposed to a first-person imagery perspective message will report higher induced empathy than those who are exposed to a third-person imagery perspective message.

Imagery Perspectives on Donation Intention

Previous studies have found that messages framed with a first-person imagery perspective can be more persuasive than a third-person imagery perspective. For example, Ostinelli and Bockenholt (2009) found that in advertising settings, a first-person imagery perspective message is more persuasive than a third-person imagery perspective message when marketers want to sell an experience (e.g., snowboarding). In another study about promoting healthy eating, Rennie et al. (2014b) found that health

messages that asked individuals to visualize engaging in fruit consumption from a first-person imagery perspective were more likely to engage in healthy eating compared to those who were asked to take a third-person imagery perspective. Although many studies have examined the influence of imagery perspectives on people's risk perceptions and judgments (e.g., Libby et al., 2011), scant research is available on how first- vs. third-person imagery perspectives influence individuals' intention to engage in prosocial behaviors.

We argue that messages with first-person imagery perspectives are more effective than messages with third-person imagery perspectives in persuading people to donate. When imagining from a first-person perspective, individuals are more likely to perceive the wildfire issue as self-relevant, which increases their identification with the victims and further triggers empathy (Chen et al., 2017). First-person imagery perspective can increase people's empathetic concern, which is an important predictor of altruism motivation and helping behavior (Lamm et al., 2007). Similarly, Decety and Yoder (2016) found that people who exhibited more cognitive empathy were more sensitive to injustice for others and more likely to perform moral behaviors. Hence, we hypothesized:

> **H3:** Individuals who are exposed to a first-person imagery perspective message will report higher donation intention than those who are exposed to a third-person perspective imagery message.

> **H4:** Perceived relevance and empathy mediate the influence of perspectives (first- vs. third-person imagery perspective) on donation intention.

Gain vs. Loss Framing

Prospect theory suggests that people react to messages differently depending on how these messages are framed (Detweiler et al., 1999). Grounded in prospect theory, gain vs. loss message framing has been widely applied in persuasive communication to show the influence of message features on persuasive outcomes (e.g., O'Keefe & Nan, 2012). By definition, a gain-framed message emphasizes the desirable outcomes associated with compliance with the advocated behavior (e.g., "If you exercise regularly, you

will reduce your chance of developing heart disease"), while a loss-framed message highlights the undesirable consequences of not performing the advocated behavior (e.g., "If you don't exercise regularly, you will increase your chance of developing heart disease") (O'Keefe & Jensen, 2008).

Relative Persuasiveness of Gain- vs. Loss-Frame

Despite having numerous studies examine the persuasive effect of gain vs. loss message framing, there has been no unanimous conclusion on which framing is more persuasive (O'Keefe & Nan, 2012). Instead, the relative persuasiveness of gain- vs. loss-framing largely depends on the advocated behavior (O'Keefe & Jensen, 2007; O'Keefe & Jensen, 2008) and other message features (Lu, 2016). For example, previous meta-analysis studies found that gain-framed messaging is more persuasive than loss-framed messaging in promoting disease prevention behavior (O'Keefe & Jensen, 2007), whereas loss-framed messaging is more persuasive than gain-framed messaging in promoting disease detection behavior (O'Keefe & Jensen, 2008). When it comes to the relative persuasiveness of framing depending on message features, Lu (2016) found that gain framing is more effective than loss framing when a sadness appeal accompanies it; conversely, loss framing would be more persuasive than gain framing when it is juxtaposed with a hope appeal. Although several moderators have been identified by previous studies, empirical evidence regarding the relative persuasiveness of gain- versus loss-framed messages is still ambiguous (Nan, 2007), especially in a donation context. Therefore, more studies are needed to explore the boundary conditions of the persuasiveness of gain vs. loss message framing.

The Moderation Role of Gain- vs. Loss-Framing

According to the construal level theory, as social distance increases, information will be represented in more abstract terms (i.e., high-level construal); whereas when social distance decreases, information will be represented in more concrete terms (i.e., low-level construal) (Nan, 2007; Trope & Liberman, 2010). Nan proposed an integrated perspective combining construal level theory and

gain vs. loss framing, suggesting that a gain-framed message is associated with a higher construal level than a loss-framed message, and therefore a gain-framed message would be more persuasive when judgments are made for others than for oneself. Based on construal level theory, we argue that when a message is framed with a first-person imagery perspective, judgments will be made on socially proximal entities (e.g., selves), and information will be represented in low-level construal. Therefore, a loss-framed message should be more effective. Conversely, when a message is framed with a third-person imagery perspective, judgments will be made on socially distant entities (e.g., others), and information will be represented in high-level construal. Therefore, a gain-framed message should be more persuasive.

Moreover, empirical studies found that the relative persuasiveness of gain vs. loss framing varies based on individuals' perceived relevance of the message (e.g., Wirtz et al., 2015). For example, Wirtz et al. found that when the message was considered personally relevant, a loss-framed message is more effective in persuading individuals to reduce alcohol drinking than the gain-framed message. Similarly, Bosone and Martinez (2017) found that a loss-framed message is more persuasive than a gain-framed message when promoting detection behaviors, but only when individuals perceive the issue as highly personally relevant. Therefore, we argue that when individuals are exposed to first-person imagery perspective messages, they will process this issue as experiencing it, perceive the issue as self-relevant, and therefore they will be more likely to be persuaded by loss-framed messages. In contrast, when individuals are exposed to third-person imagery perspective messages, they will process this issue as observing it; therefore, they will be less likely to perceive self-relevance and more likely to be influenced by gain-framed messages. Hence, we propose:

> **H5:** The effect of perspectives (first- vs. third-person imagery perspective) on donation intention is more pronounced in a loss-framed condition than a gain-framed condition.
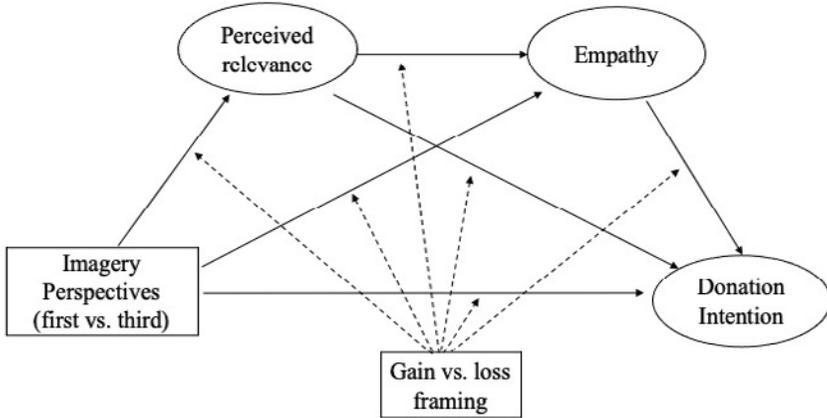
FIGURE 1   Conceptual Model

Methods

Procedures

A 2 (first-person imagery perspective vs. third-person imagery perspective) × 2 (gain frame vs. loss frame) between-subject online experiment was conducted via Amazon Mechanical Turk (MTurk) crowdsourcing service in July 2019. The participants were informed that they would read a screenshot of a Facebook post from the American Red Cross.

Participants were randomly assigned to read one of four Facebook messages. In the *first-person imagery perspective condition*, the post asked participants to imagine that they were the victims of the wildfire disaster (i.e., "Not just in California, but wildfires are a common problem for Americans—More than 100,000 wildfires clear 4 million to 5 million acres of land in the U.S. every year. Imagine the wildfire happened in your community, what if one day you could face financial, emotional uncertainty due to the wildfires?"). In the *third-person imagery perspective condition*, the post asked participants to imagine the situations of victims who were experiencing the wildfire disaster (i.e., "A series of large wildfires erupted across the country including California—More than 100,000 wildfires clear 4 million to 5 million acres of land in the U.S. every year. An innumerable people lost their homes in the fire.

Countless people have faced financial, emotional uncertainty due to the wildfires."). In the *gain frame condition*, the post informed participants that victims could rebuild their homes if donations were received (i.e., "With receiving support from the Wildfire Relief Fund, thousands of people affected by wildfire-related disasters could rebuild homes, get medical treatments, and save their lives. You can make a difference by clicking here!"). In the *loss frame condition*, the post informed participants that victims might lose their chance to rebuild homes if donations were not received (i.e., "Without receiving support from the Wildfire Relief Fund, thousands of people would lose their chance to rebuild homes, fail to receive medical treatments, and might lose their lives. You can make a difference by clicking here!").

In total, 25.9% of the participants were assigned to the "I-gain" condition, 23.6% were assigned to the "they-gain" condition, 25.1% were assigned to the "I-lose" condition, and 25.5% were assigned to the "they-lose" condition. After being exposed to the Facebook message, participants completed posttest questions that addressed perceived relevance, empathy, donation intention, and demographic information.

Participants

There were 549 participants recruited for the online experiment, and each was compensated $1.00 for completing the study. Responses that did not pass attention checks or that contained missing values were filtered out before data analysis. In total, there were 475 valid responses for data analysis. The final dataset of participants consists of 51.8% ($n = 246$) males and 45.9% ($n = 218$) females. Among the participants, 31.8% ($n = 151$) were 18–29 years old, 39.6% ($n = 188$) were 30–39 years old, 13.9% ($n = 66$) were 40–49 years old, 10.1% ($n = 48$) were 50–64 years old, and 2.3% ($n = 11$) were 65 years old or over (unreported age: 2.3%). Of the sample, about 56% ($n = 261$) reported having attained some or higher level of a bachelor's degree. About 7.8% ($n = 37$) of participants reported annual household incomes of $9,999 or below, 15.6% ($n = 74$) between $10,000 and $24,999, 30.1% ($n = 143$) between $25,000 and $49,999, 21.5% ($n = 102$) between $50,000

and $74,999, 14.3% (*n* = 68) between $75,000 and $99,999, and 6.8% (*n* = 32) of $100,000 or above (unreported annual household income: 1.9%).

Measurement

Perceived relevance (RE). Perceived relevance was indicated by three items measured on a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*) that asked participants to respond to the following statements: "Thinking back to the Facebook post about donation from American Red Cross, I think the message is relevant to my life," "The message grabbed my attention," and "The message said something important to me" (*M* = 4.49, *SD* = 1.55, Cronbach's α =.85).

Empathy (EM). A three-item version of the basic empathy scale (Jolliffe & Farrington, 2006) measured empathy, including "I got caught up in the victims' feelings," "I felt sad when I imagined the victims' feelings," and "I can understand how the victims feel" based on a 7-point scale (1 = *Strongly disagree*; 7 = *Strongly agree*) (*M* = 4.59, *SD* = 1.51, Cronbach's α =.83).

Donation intention (DI). Three items were employed to operationalize donation intention: (1) I would try to make a wildfire donation; (2) I intend to participate in wildfire donation; (3) I plan to participate in wildfire donation. Participants answered the items based on a 7-point scale ranging from 1 (*not at all likely*) to 7 (*very likely*) (*M* = 4.05, *SD* =1.95, Cronbach's α =.96).

Analysis Plan

A multigroup Structural Equation Modeling (SEM) was conducted using R package lavaan (Rosseel, 2012). Multigroup SEM analysis examined whether values of model parameters vary across different groups and is often applied in models with a categorical moderator (Kline, 2015). We took two steps in the analysis. First, we established the measurement model and examined the measurement invariance across the gain- and loss-framed groups. Second, we examined path coefficients invariance across the gain- and loss-framed groups and fitted the final structural model. Parameters and fit indices were estimated based on the maximum-likelihood

method. Indirect effects were estimated with bootstrapping procedures (bootstrap = 1,000).

Results

Model Fitting: A Multigroup SEM Model

The Measurement Model

First, we conducted a confirmatory factor analysis (CFA) to assess whether the measurement model demonstrates an acceptable fit to the data. The measurement model was specified to capture three latent factors (i.e., perceived relevance, empathy, and donation intention) with their associated indicators. All latent variables were allowed to covary freely with each other. To scale the metric of each latent factor, we set one loading of each factor as 1. Results found that the initial measurement model had an adequate fit (CFI = 0.98, SRMR = 0.04, RMSEA = 0.08) based on the cutoff criteria recommended by Kenny (2015). Therefore, we accept the initial measurement model as the final measurement model.

Examining Measurement Invariance

Second, we examined measurement invariance between the gain-framed group and the loss-framed group. Measurement invariance assesses the "psychometric equivalence of a construct across groups or across time" (Putnick & Bornstein, 2016, p. 1). Invariance of measurement would suggest that any differences between the gain-framed group and the loss-framed group stem from structural differences in path coefficients rather than measurement differences. Four measurement models were specified and tested (see Table 1). Model 1 was the baseline model, which was constructed without constraints. Model 2 constrained the factor loadings equal across groups. In model 3, factor loadings and item intercepts were modeled invariant. Model 4 constrained factor loadings, item intercepts, and means on latent variables equal across the gain- and loss-framed groups. The chi-square differences were not significant between model 2 and model 1 ($\Delta\chi^2$ [6] = 9.58, p = .14), between model 3 and model 2 ($\Delta\chi^2$ [6] = 4.86, p = .14), and between model 4 and model 3 ($\Delta\chi^2$ [3] = 3.86, p = .28). These findings suggest that the gain-framed group and the loss-framed

TABLE 1   Testing for Measurement Invariance Across Gain- and Loss-Framed Groups

Measurement Model	χ2	df	Δχ2	Δdf	P
Model 1: Baseline model (no equality constraints imposed)	150.98	48			
Model 2: Factor loadings modeled invariant	160.56	54	9.58	6	0.14
Model 3: Factor loadings and item intercepts modeled invariant	165.41	60	4.86	6	0.56
Model 4: Factor loadings, item intercepts and latent means modeled invariant	169.27	63	3.86	3	0.28

group had no significant differences in factor loadings, item intercepts, and group means on the latent variables. In other words, the two groups are invariant in terms of measurement.

The Structural Model

Next, we examined whether the structural model differs across the gain- and loss-framed groups. A series of SEM multigroup analyses were performed. First, we established a fully restricted model, in which all hypothesized structural paths were constrained equal across the two groups. Second, we established an unconstrained model in which all path coefficients were freely estimated. Both the fully restricted model (CFI = 0.98, SRMR = 0.05, RMSEA = 0.07, and χ^2/df = 2.27) and the unconstrained model (CFI = 0.98, SRMR = 0.03, RMSEA = 0.07, and χ^2/df = 2.27) yielded excellent model fit. The two models yielded a significant chi-square difference ($\Delta\chi^2$ [6] = 13.45, p <.05), suggesting that the gain-framed group and the loss-framed group differ significantly in the structural model.

To further identify the source of path inequality, we compared the fully restricted model with a set of less restricted models. In each less restricted model, one path coefficient was released from the constraint (i.e., freely estimated). A significant chi-square difference was found between model 1 (i.e., the fully restricted model)

and model 2 ($\Delta\chi^2$ [1] = 7.22, p <.01), suggesting that releasing the path from imagery perspectives to perceived relevance from the equality constraint significantly improved the model fit. In other words, the impact of imagery perspectives on perceived relevance differed significantly between the loss-framed group and the gain-framed group. Similarly, the path from perceived relevance to empathy was found to differ significantly between the gain-framed group and the loss-framed group ($\Delta\chi^2$ [1] = 4.00, p <.05). Conversely, the paths from imagery perspectives to empathy ($\Delta\chi^2$ [1] = 0.04, p = 0.83) and to donation intention ($\Delta\chi^2$ [1] = 0.66, p = 0.42), and the paths from perceived relevance ($\Delta\chi^2$ [1] = 0.53, p = 0.47) and empathy ($\Delta\chi^2$ [1] = 0.29, p = 0.59) to donation intention were found to have no significant difference between the gain-framed group and the loss-framed group. Results were summarized in Table 2.

TABLE 2   Testing for Path Coefficients Invariance Across Gain- and Loss-Framed Groups

Structural Model	χ2	df	Δχ2	Δdf	Equality of Path Coefficients
Model 1: Baseline model (fully restricted model)	140.55	62	–	–	
Model 2: Path IM → RE unconstrainted	133.33	61	7.22**	1	unequal
Model 3: Path IM → EM unconstrainted	140.51	61	0.04	1	equal
Model 4: Path RE → EM unconstrainted	136.55	61	4.00*	1	unequal
Model 5: Path RE → DI unconstrainted	140.02	61	0.53	1	equal
Model 6: Path EM → DI unconstrainted	140.26	61	0.29	1	equal
Model 7: Path IM → DI unconstrainted	139.89	61	0.66	1	equal

Note: * significant at 0.05 level, ** significant at 0.01 level. IM = Imagery perspectives, RE = Perceived relevance, EM = Empathy, DI = Donation intention.
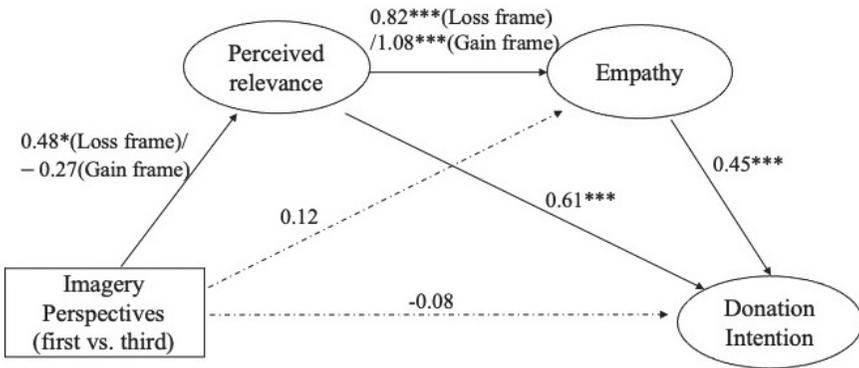
FIGURE 2   The Multigroup Structural Model with Path Coefficients

Notes: * significant at 0.05 level, *** significant at 0.001 level. Non-significant paths are in dotted line. $\chi 2$ = 129.14, df = 60 ($\chi 2$ /df = 2.15), CFI = 0.98, SRMR = 0.03, RMSEA = 0.07. Imagery perspectives (0 = third-person perspective, 1 = first-person perspective).

Finally, based on the results of invariance in path coefficients, we established a final structural model, in which the path from imagery perspective to perceived relevance and the path from perceived relevance to empathy were freely estimated, and all other hypothesized structural paths were constrained equal across the gain- and loss-framed groups. The final model yielded an excellent model fit (CFI = 0.98, SRMR = 0.03, RMSEA = 0.07, and χ^2/df = 2.15). Figure 2 presents the final structural model with unstandardized path coefficients.

Hypothesis Testing
Effects of Imagery Perspectives on Perceived Relevance and Empathy

First, we explored whether individuals who were exposed to a first-person imagery perspective message reported higher perceived relevance (H1) and induced empathy (H2) than those who were exposed to a third-person imagery perspective message. Results from the multigroup SEM analysis suggested that the effects of imagery perspectives differed across the gain- and loss-framed groups.

There was no significant difference between the first-person imagery perspective group ("I gain") and the third-person

perspective imagery group ("they gain") in individuals' perceived relevance when the message was gain-framed (b_{IM-RE} = −0.27, p = .13). However, when the message was loss-framed, participants who were exposed to a first-person imagery perspective ("I lose") message reported higher perceived relevance than those who were exposed to a third-person imagery perspective ("they lose") message (b_{IM-RE} = 0.48, p <.05). Therefore, H1 was partially supported.

When the message was gain-framed, imagery perspectives had no significant direct (b_{IM-EM} = 0.12, p = .33) or indirect effect ($b_{IM-RE-EM}$ = −0.30, p = .13, 95% CI = [−0.67, 0.08]) on empathy. However, when the message was loss-framed, imagery perspectives yielded a significant indirect effect on empathy through perceived relevance ($b_{IM-RE-EM}$ = 0.40, p < .05, 95% CI = [0.04, 0.75]), suggesting that individuals who were exposed to the first-person imagery perspective ("I lose") message reported significantly higher empathy than those who were exposed to the third-person imagery perspective ("they lose") message. Therefore, H2 was partially accepted.

Effects of Imagery Perspectives on Donation Intention

Next, we examined the effects of imagery perspectives on donation intention and probed the underlying mechanism. Specifically, we proposed that a first-person (vs. a third-person) imagery perspective message had a positive effect on individuals' donation intention (H3), which was mediated from perceived relevance and empathy (H4).

Results found that imagery perspectives had no significant direct effect on donation intention (b_{IM-DI} = −0.08, p =.51), regardless of whether the message was gain-framed or loss-framed. Three indirect paths from imagery perspectives on donation intention were examined. First, we examined the mediating role of perceived relevance. Results found that the indirect effect of first-person (vs. third-person) imagery perspective on donation intention through perceived relevance was significant when the message was loss-framed ($b_{IM-RE-DI}$ = 0.30, p < .05, 95% CI = [0.02, 0.57]) but not significant when the message was gain-framed ($b_{IM-RE-DI}$ = −0.17, p = .14, 95% CI = [−0.40, 0.06]). Second, we examined the mediating role of empathy. Results found that empathy was not a

significant mediator for both the gain-framed group and the loss-framed group ($b_{\text{IM-EM-DI}} = 0.05$, $p = .33$, 95% CI = [−0.05, 0.16]). Third, we examined whether perceived relevance and empathy sequentially mediate the effects of imagery perspectives on donation intention. Results found that the indirect effect through perceived relevance and empathy was significant for the loss-framed group ($b_{\text{IM-RE-EM-DI}} = 0.18$, $p < .05$, 95% CI = [0.01, 0.35]) but not for the gain-framed group ($b_{\text{IM-RE-EM-DI}} = -0.13$, $p = .14$, 95% CI = [−0.31, 0.05]). These results suggested that the positive effect of the first-person imagery perspective on donation intention was significant when the message was loss-framed ("I lose"). The effect of imagery perspectives was operated through perceived relevance, which increased individuals' donation directly as well as indirectly through empathy. Therefore, H3 and H4 were partially supported.

The Moderating Role of Gain- vs. Loss-Framing

Finally, we examined whether the advantage of a first-person (vs. third-person) imagery perspective message was more pronounced when the message was loss-framed compared to gain-framed (H5). To detect whether the overall effect of imagery perspectives on donation intention differs significantly across gain- and loss-framed groups, we computed the group difference in the total effects and the corresponding bias-corrected (BC_{diff}) bootstrap confidence intervals. The bootstrapping method has been widely applied for comparing group differences of total effects in multi-group SEM analysis (Ryu & Cheong, 2017). Results found that the overall effect of imagery perspectives on donation intention in the loss-framed group was 0.77 ($p < .05$, BC_{diff} 95% CI = [0.01, 0.35]) significantly higher than that of the gain-framed group, suggesting that the persuasiveness of a first-person imagery perspective message was more pronounced in a loss-framed message than a gain-framed message. Therefore, H5 was supported.

Table 3 summarizes the descriptive statistics of individuals' donation intention under the four experimental conditions. ANOVA analysis provided additional support for the interaction relationship between imagery perspectives and gain- vs. loss-framing ($F(1, 446) = 6.01$, $p < .05$, $\eta_p^2 = .013$). Specifically, when

TABLE 3   Descriptive Statistics of Manipulation Groups on Dependent Variables

Manipulations	N	Perceived Relevance		Empathy		Donation Intention	
		Mean	SE	Mean	SE	Mean	SE
Gain × First person ("I gain")	123	4.33	0.14	4.49	0.13	3.85	0.15
Gain × Third person ("They gain")	112	4.58	0.15	4.58	0.15	4.03	0.16
Loss × First person ("I lose")	119	4.73	0.14	4.86	0.14	4.12	0.15
Loss × Third person ("They lose")	121	4.31	0.14	4.43	0.14	3.70	0.15

the message was loss-framed, a first-person perspective (M = 4.12, SE =.15) was more persuasive than a third-person perspective message (M = 3.70, SE =.15, p <.05). Additionally, when the message was framed with a third-person imagery perspective, the gain-framed message (M = 4.03, SE =.16) was more persuasive than the loss-framed message (M = 3.70, SE =.15, p <.05) in enhancing individuals' donation intentions.

Discussion

Charitable giving is an important resource that helps individuals and communities to recover from disasters. This study set out to understand the role of message framing on people's donation intentions in the wake of a natural disaster. Grounded in the context of the 2018 California wildfire, we examined the relative persuasiveness of two message features (i.e., gain- vs. loss-frames and first- vs. third-person imagery perspectives).

As expected, when a message is loss-framed, a first-person imagery perspective ("I lose") message is more effective in enhancing individuals' perceived relevance, inducing empathy, and increasing their intention to donate compared to a third-person perspective message ("They lose"). Notably, the influence of the first-person imagery perspective on individuals' donation intentions was operated through perceived relevance, which increased donation intention directly as well as indirectly through enhancing empathy. These results suggested that for loss-framed messages, when exposed to the first-person imagery perspective ("I lose"), individuals are more likely to perceive the wildfire issue as self-relevant, experience feelings of empathy, and thus more likely to donate compared to being exposed to the third-person imagery perspective ("They lose").

However, when the message was gain-framed, we did not find any difference between first- vs. third-person imagery perspective messages (i.e., "I gain" vs. "They gain") in individuals' reaction to the message and their donation intentions. This might be because people are more influenced by negativity bias when judgments are made for socially proximal entities (e.g., selves) than socially distant entities (e.g., others). Perspectives from evolutionary psychology

may also help explain the findings. When negative emotions are aroused from messages, a person's self-protection system is activated (Griskevicius et al., 2009). We argue that when encountering a loss-framed message, individuals will be primed into self-protection thinking and will be more influenced by egoistic motivation. Therefore, an "I lose" message will be more persuasive than a "they lose" message in promoting donation intention.

Moreover, we found that the relative influence of gain- vs. loss-frames depends on the imagery perspectives of the message. When a message was framed with a third-person imagery perspective, the gain-framed ("they gain") message more effectively persuaded people to donate than the loss-framed ("they lose") message. This finding can be explained with the construal level theory. Vasquez and Buehler (2007) posited that a third-person imagery perspective would induce a higher construal level than a first-person imagery perspective. Nan (2007) proposed that a gain frame is associated with a higher construal level than a loss frame. As Nan argued, when the persuasive message is framed with a third-person imagery perspective, a gain-framed message can match it by inducing a high level of construal; therefore, it will be more persuasive than a loss-framed message that induces a low level of construal. However, when the message is framed with the first-person imagery perspective, there is no significant difference between gain frame ("I gain") and loss frame ("I lose"). One possible reason is that when a message is considered self-relevant, even low-level construal will become salient (Nan, 2007). Therefore, the loss-framed message and the gain-framed message will not differ significantly in their persuasiveness when a first-person imagery perspective was presented.

Theoretical Implications

This study yielded several theoretical implications. First, this study highlights the role of imagery perspectives as a message framing technique in persuasion. The actor-observer effect has long been considered as one barrier to individuals' prosocial behaviors (Fabes et al., 1989). According to the actor-observer effect, actors often attribute their own behavior to situational causes, whereas

observers attribute the behavior of others to person-based causes (i.e., selfishness) (Robins et al., 1996). However, the findings of this study show the possibility of overcoming such limitations. Our data revealed that framing messages with a first-person imagery perspective can effectively enhance perceived relevance, induce empathy, and promote helping behaviors for others. A first-person imagery perspective, which asks individuals to think as an internal actor rather than an external observer, may help people to understand others' feelings and therefore increase their willingness to help. In this study, we examined the role of imagery perspectives (i.e., first- vs. third-person imagery perspectives) in a donation context. Future studies can continue to examine the role of imagery perspectives in other contexts such as prejudice reduction.

Second, this study contributes to gain-loss framing literature by testing the relative persuasiveness of gain-loss frames. Drawing upon construal level theory, we argued that when a message is framed with a third-person imagery perspective, individuals will use a high construal level. Therefore, a gain frame, which arouses a high construal level, will be more persuasive than a loss frame. Future studies can replicate our design in other contexts to see whether imagery perspectives consistently moderate the relative persuasiveness of gain-loss frames. We also encourage future studies to explore how message framing influences the construal level of mental representations.

Practical Implications

In addition to theoretical contributions, this study's practical contributions should also be acknowledged. First, our data empirically revealed that framing charity appeals with a first-person imagery perspective and a loss-frame can more effectively enhance individuals' donation intentions. Our results suggest that communication strategies (i.e., gain-or-loss framing and imagery perspectives in the current study) inspire corporates and nongovernmental organizations to design messages more effectively for resource mobilization, such as fundraising and achieving their communication goal. To promote prosocial behavior in fundraising campaigns, organizations can ask message recipients to put themselves in

others' shoes and to imagine they are experiencing the disaster. Second, emotional appeal through empathy is an effective strategy in persuading people to donate. In order to promote altruism motivation, fundraising practitioners could involve emotional components in the message.

Limitations

There are limitations to this study. First, we used a single message as stimuli, which limits the generalizability of the findings to different messages. Second, we did not assess participants' actual donation behaviors. Although behavioral intention is a strong predictor of behavior (Feldman & Lynch, 1988), it is unclear whether the effects detected in this study would apply similarly to actual behavioral outcomes. Third, we only assessed the immediate effects of messages. Future studies could examine whether message framing has a delayed or long-term effect on individuals' donation intention. Fourth, this study employed convenient samples from MTurk. Although the obtained data quality from MTurk samples is generally decent (Chandler et al., 2019), concerns remain about diversity among MTurk workers. Our findings should be cautiously interpreted when generalizing to the general population. Moreover, this study is grounded in a U.S.-centric context. Studies have found that culture could impact the publics' charitable giving intentions (Siemens et al., 2020); therefore, we recommend future research to replicate our studies in other cultural contexts.

Concluding Remarks

The current study contributes to an understanding of how imagery perspectives (i.e., first- vs. third-person imagery perspective) and loss-gain framing influence individuals' donation intentions in the wake of a wildfire disaster. Findings in this study can shed light on message designs for future fundraising activities.

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