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**Persuasive Effects of the Four Types of Regulatory-Focused Message Framing  
in Philanthropy Advertising**

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**Ji Mi Hong**

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## **Dedication**

This dissertation is dedicated to my parents, family, and all others who have supported me so enormously throughout my academic journey at the University of Texas at Austin.

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## **Abstract**

# **Persuasive Effects of the Four Types of Regulatory-Focused Message Framing in Philanthropy Advertising**

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Under the regulatory focus framework (Higgins, 1997, 1998), this dissertation research has examined the persuasive effects of the four types of outcomes framed in philanthropy advertising. Through a comprehensive review of the literature, this research discussed 1) how regulatory-focused messages can be classified into the four frames—gains, non-gains, losses, and non-losses—which varies in overall valence and outcome focus, as well as 2) how previous studies have differentially operationalized their promotion and prevention frames on the basis of the refined message distinction above.

Based on the literature review, this research subsequently conducted three empirical studies to examine 3) how the four types of message framing systematically affect the intensity of subjective feelings among message recipients (H1~H2), 4) the moderating role of subjective feelings to understand how the four types of message framing produce differences in ad effectiveness (H3~H4) through change in the intensity levels of pleasure and pain among the message recipients (H5~H6), and 5) the mediating role of individuals' momentary regulatory focus to understand how the persuasive effects of the advertisement are contingent upon its message frame (i.e., overall valence and

outcome focus) and the message recipient's motivational state (i.e., momentary regulatory focus) functioning synergistically (H7~H8).

Results of this research found that participants felt greater pleasure from the ad being framed as gains than as non-losses, whereas participants felt greater pain about the ad being framed as losses than non-gains (Studies 1 and 2). This research also supported that among participants subjective feelings play a mediating role, such that the gain (loss) frame loomed larger than did the non-loss (non-gain) frame, and experiencing more intense subjective feelings in turn led to more positive effects on participants' attitudes towards the advertising and attitudes towards the nonprofit organization (Study 2).

This study also identified a significant moderating role of individuals' momentary regulatory focus, but revealed a new pattern of three-way interaction on their evaluations of helping others, which departed from the study's prediction (Study 3). For example, the gain versus non-gain asymmetry in evaluations towards helping behavior was significant only for participants in a promotion focus, with the message framed as gains (vs. non-losses) being more positive; for those in a prevention focus, this asymmetry vanished. In contrast, the loss versus non-loss asymmetry in evaluations of helping behavior was significant only for participants in a prevention focus, with the message framed as losses (vs. non-gains) being more positive; this asymmetry vanished for those in a promotion focus.

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## Chapter I: Introduction

People are motivated to fulfill a variety of basic needs. These needs can be divided into two fundamental concerns for advancement (i.e., nourishment, growth, and development) and security (i.e., shelter, safety, and protection; see Bowlby, 1969; Maslow, 1955; Rogers, 1960). That these motivations for advancement and security—beyond originating from different needs—also foster different modes of goal-pursuit is the main proposal of regulatory focus theory (Higgins, 1997, 2000). This theory asserts that when people represent and experience motivations for advancement (i.e., a promotion focus), they focus on identifying and exploiting opportunities for gains that will bring them closer to the ideals they hope to attain. When they represent and experience motivations for security (i.e., a prevention focus), people focus on anticipating and protecting against potential losses that might keep them from fulfilling their responsibilities (Brendl, Higgins, & Lemm, 1995; Higgins, Roney, Crowe, & Hymes, 1994; Idson, Liberman, & Higgins, 2000; Liberman, Idson, & Higgins, 2005; Molden & Miele, 2008).

This framework of regulatory focus has been highly influential and has been implicated in a large body of research that straddles the fields of psychology, marketing, and communication (Sacchi & Stanca, 2014; Summerville & Roese, 2008). More importantly, researchers in message framing have tried to make manifest the two regulatory systems in persuasive messages by how they frame the outcome of a specific action/or inaction (e.g., Aaker & Lee, 2001; Cesario, Grant, & Higgins, 2004; Kareklas, Carlson, & Muehling, 2012; Lee & Aaker, 2004; Sherman, Mann, & Updegraff, 2006). However, the significant gap within those studies results from researchers adopting different approaches or dimensions to frame regulatory foci in their messages; these

approaches produced mixed findings on persuasion (Yi & Baumgartner, 2009; Zhao & Pechmann, 2007).

On one hand, promotion and prevention frames may be distinguished by a difference in “overall valence” of the outcome (e.g., Aaker & Lee, 2001; Cesario, Grant, & Higgins, 2004; Lee & Aaker, 2004; Uskul, Sherman, & Fitzgibbon, 2009). A promotion frame refers to outcomes with a positive valence (i.e., gains or non-losses). A prevention frame refers to outcomes with a negative valence (i.e., losses or non-gains). At the same time, promotion and prevention frames are defined as distinguishing between types of “outcome focus” (e.g., Kareklas, Carlson, & Muehling, 2012; Lin & Shen, 2012; Micu & Chowdhury, 2010; Sherman, Mann, & Updegraff, 2006). A promotion frame here refers to the presence or absence of gains (i.e., gains or non-gains), while a prevention frame refers to the presence or absence of losses (i.e., losses or a non-losses).

When crossing over the two dimensions of message framing — overall valence (positive vs. negative) and outcome focus (gain-anchored vs. loss-anchored) — the outcome frames amount to not two but four: gains, non-gains, losses and non-losses. In persuasive messages, positively valenced outcomes may emphasize either the presence of gains, namely “gains” (e.g., “*desirable outcome X will be present/obtained*”) or the absence of losses, namely “non-losses” (e.g., “*undesirable outcome Y will be absent/avoided*”). Both outcomes result from engaging in the recommended action (e.g., “*if you perform the advocated action*”). Similarly, negatively valenced outcomes may emphasize either the absence of gains, namely “non-gains” (e.g., “*desirable outcome X will be absent/forgone*”) or the presence of losses, namely “losses” (e.g., “*undesirable outcome Y will be present/incurred*”). Both outcomes result from not engaging in the recommended action (e.g., “*if you do not perform the advocated action*”).

Despite the more refined message distinction, in most previous studies on regulatory-focused message framing, promotion and prevention frames are compared as “gains” versus “losses” (e.g., Uskul et al., 2009), “gains” and “non-gains” (e.g., Aaker & Lee, 2001; Lee & Aaker, 2004), or “gains” and “non-losses” (e.g., Kareklas et al., 2012; Wang & Lee, 2006). Some researchers even created a promotion and a prevention frame by combining “gains” with “non-losses” (e.g., Cesario et al., 2004) and by combining “losses” with “non-losses” (e.g., McKay-Nesbitt, Bhatnagar, & Smith, 2013). Other researchers even used a non-standard message frame that falls nowhere on the spectrum given above (e.g., double negation: “*Don’t Miss Out on Getting Energized / Don’t Miss Out on Preventing Clogged Arteries.*”; see Lee & Aaker, 2004).

These differences in the message operationalization might explain the reasons why past researchers have not always reported consistent findings on the persuasive effects of regulatory-focused message framing, why they have difficulties comparing and determining which of these two message frames is more effective in persuasion, and why it is hard to define exactly promotion and prevention frames (Bechkoff et al., 2009; Dijkstra, Rothman, & Pietersma, 2011; Sacchi & Stanca, 2014; Yi & Baumgartner, 2009; Zhao & Pechmann, 2007).

Under the framework of regulatory focus (Higgins, 1997, 1998), this dissertation research conducted a comprehensive literature review to discuss 1) how regulatory-focused messages can be classified into the four types of frame, which varies in overall valence and outcome focus, and to examine 2) how previous studies have differentially operationalized their promotion and prevention frames on the basis of the refined message distinction above.

Based on the literature review, this research subsequently conducted three empirical studies to test the persuasive effects of the four types of regulatory-focused

message framing. It tested the asymmetry in the perception of gains, non-gains, losses, and non-losses through message framing (Studies 1 and 2), predicting that the pleasure of gains is more intense than that of non-losses and that the pain of losses is more intense than that of non-gains. By doing so, this research tried to understand 3) how the four types of message framing can systematically affect the intensity of subjective feelings among message recipients.

In addition, this research investigated, by looking at change in subjective feelings, a novel mechanism between regulatory-focused message framing and ad effectiveness (Studies 1 and 2). Through examining the mediating role of subjective feelings, this research tried to understand 4) how the asymmetry in subjective feelings derived from the four types of message framing translates into differences in ad effectiveness. Lastly, this research examined whether the individual's momentary regulatory focus moderates the impacts of the four types of message framing on their global and relatively enduring evaluations towards helping others (Study 3). By identifying this boundary condition, this research tried to shed light on 5) how the persuasive effects of the advertisement are contingent upon the synergistic functioning of its message frame (i.e., overall valence and outcome focus) and the message recipient's motivational state (i.e., momentary regulatory focus).

More importantly, these implications of the four types of regulatory-focused message framing were tested in the context of philanthropy advertising, which promotes the voluntary acts of doing good so as to produce other-regarding or prosocial benefits (Hammack, 2010; Patton, Foote, & Radner, 2015; Reich, Cordelli, & Bernholz, 2016). This is because understanding the role of regulatory foci in persuasive messages is especially crucial and important to nonprofit sectors. According to a recent content

analysis research, almost 80% of nonprofit organizations listed in the *2014 Philanthropy 400* frequently employed regulatory foci in their print-ad messages (Hong & Lee, 2018).

In addition, the decision process behind helping and giving behaviors typically begins with the potential donor's perception that the charity is in need of help (Neeli Bendapudi, Singh, & Bendapudi, 1996). This need perception is generated when one recognizes a significant gap between what is and what should be (Batson, 1987). Regulatory-focused message framing shows how to reduce (amplify) discrepancies between the currently perceived actual state and the desired (undesired) end-state by portraying the outcomes of the action or inaction. Hence, utilizing such framing properly would affect the audience's perceived gap and cost-benefit ratio. For the reasons given above, it is worthwhile to examine, especially for philanthropy advertising, regulatory foci in persuasive message with a more refined message distinction.

Altogether this research examined the persuasive effects of the four types of regulatory-focused message framing in the context of philanthropy advertising. To do so, it employed a 2 (valence of outcome: positive vs. negative)  $\times$  2 (focus of outcome: gain-anchored vs. loss-anchored)  $\times$  2 (individual's momentary regulatory focus: promotion-primed vs. prevention-primed) between-subject randomly assigned factorial design.

In the experimental survey, the overall valence and outcome focus were manipulated through the ad messages, and the recipient's regulatory foci (a moderator in Study 3) were momentarily induced by essay-writing tasks. For outcome variables, the researcher measured subjective feelings (Study 1; a mediator in Study 2), advertising effectiveness (Study 2), and evaluations towards helping others (Study 3). Finally, this research created two ad stimuli. One included a real and urgent local social cause (Study 1: disaster relief in California). The other included a chronic, widespread, and national social cause (Studies 2~3: child hunger in the U.S.).

The findings of this research have important implications. The refined message distinction of gains, non-gains, losses, and non-losses will help theoretically explain and resolve distinct patterns of previous findings, as well as guide future message framing research on regulatory focus. This research also confirms that asymmetry in subjective feelings is activated from the message-framing technique even in the altruistic, other-focused ad appeals, which results in a difference in persuasion. In the context of philanthropy advertising, no prior study has, to my knowledge, examined a novel mechanism of regulatory-focused message-framing effects on persuasion through systematic change in subjective feelings. Therefore, these findings will add to a growing body of literature on regulatory focus, message framing, and prosocial behavior.

Nonprofit sectors can also benefit from the findings of this research. On the basis of the refined message distinction, practitioners can effectively employ the intended regulatory foci in their philanthropic messages. This would lead them to creating a more easily accessible, comprehensible, and relevant message to their target audience. The findings of this research suggest that the impacts of philanthropy advertisements can be enhanced by aligning the message's valence and outcome focus to the recipient's momentary regulatory focus. For example, practitioners may be able to make salient or prime a single regulatory focus through their choice of advertising vehicles and then subsequently place their advertisements framed as having the congruent regulatory focus in terms of the overall valence and outcome focus.

This work is organized as follows. Chapter 2 provides a comprehensive review of the previous literature relevant to the current research. Chapter 3 puts forth a proposed conceptual framework and specific hypotheses. Chapters 4~6 describe the experimental research design, methods, and results from each of three studies. Finally, Chapter 7

discusses this dissertation research with a summary, theoretical and practical implications, limitations, and suggestions for future research.

## **Chapter II: Literature Review**

### **II.1. REGULATORY FOCUS THEORY**

#### **II.1.1. Regulatory Focus as Motivational Principle**

Many influential theories of motivation and personality (e.g., Bowlby, 1969; Maslow, 1955; Rogers, 1960) share the general assumption that individuals seek nurturance and security as desired end-states worthy of active pursuit. Regulatory focus theory (Higgins, 1997, 2000) proposes the existence of distinct regulatory systems that are concerned with acquiring either nurturance or security through goal attainment. Individuals' self-regulation in relation to their hopes and aspirations (ideals) satisfies nurturance needs, and its goal is accomplishment and advancement. This regulatory system is referred to as a "promotion focus." Success and failure in a promotion focus are experienced as the presence of positive outcomes (gains) and the absence of positive outcomes (non-gains), respectively.

In contrast, individuals satisfy their security needs by regulating themselves in relation to their duties and obligations (oughts); the goal of such self-regulation is safety and fulfillment of responsibilities. This regulatory system is referred to as a "prevention focus." Success of prevention focus is experienced as the absence of negative outcomes (non-losses); failure is experienced as the presence of negative outcomes (losses) (Higgins, 1997, 2000; Higgins et al., 2001; Higgins, Idson, Freitas, Spiegel, & Molden, 2003; Idson et al., 2000).

All people possess both systems, but one system might predominate because of different socialization experiences. Caretakers might instill in a child a promotion focus, for example, when they repeatedly set up opportunities for the child to engage in rewarding activities; they might instill a prevention focus when they continually train the

child to be alert to potential dangers (Higgins, 1997). Caretakers are supplanted, in later life phases, by friends, spouses, coworkers, employers, or others (Higgins, 1997; Higgins et al., 2001).

In addition to a chronic regulatory focus, momentary situations are also capable of temporarily inducing either a promotion focus or a prevention focus (Higgins, 1997; Higgins et al., 2001). Just as with the responses of caretakers, task instructions or feedback concerning which actions will produce which consequences can temporally induce a certain regulatory focus. Previous studies have successfully activated individuals' situational regulatory focus by asking them to do the following: to describe their past and current aspirations or duties (e.g., Higgins, Roney, Crowe, & Hymes, 1994), to categorize promotion- or prevention-related words (e.g., Lockwood, Jordon, & Kunda, 2002), to complete a paper-and-pencil maze for the mouse's safety or nurturance (e.g., Friedman & Förster, 2001), and to read persuasive information framed in gain/non-gain/loss/non-loss terms (e.g., Aaker & Lee 2001). Thus, the concept of regulatory focus is broader than just socialization of strong promotion-focused "ideals" or prevention-focused "oughts."

### **II.1.2. Regulatory Focus and Strategic Means**

Regulatory focus proposes (Higgins, 1997, 2000) that individuals can increase the likelihood that they will attain a desired end-state (i.e., reduce discrepancies) by either approaching matches or avoiding mismatches to that end-state. Initial studies of regulatory focus theory empirically tested the prediction that a strategic inclination to approach matches is more likely for promotion-focus regulation whereas a strategic inclination to avoid mismatches is more likely for prevention-focus regulation (Higgins, 1997, 2000; Higgins et al., 1994).

For example, Higgins et al. (1994) found that, when a promotion focus (vs. a prevention focus) was induced, participants remembered better the episodes that exemplified approaching a match to a desired end-state (e.g., “I woke up early this morning to attend the 8:30 psychology class.”) than those that exemplified avoiding a mismatch to a desired end-state (e.g., “I didn’t register for a class in Spanish that was scheduled at the same time”). When a prevention focus (vs. a promotion focus) was induced, the reverse was true. In a second study from the same work, Higgins and colleagues found that individuals with promotion-focus concerns selected friendship tactics that exemplified a strategy of approaching matches (e.g., “be supportive to your friends”); individuals with prevention-focus concerns selected friendship tactics that exemplified a strategy of avoiding mismatches (e.g., “stay in touch and don’t lose contact with friends”).

In a study by Shah, Higgins, and Friedman (1998), participants performed an anagrams task. The researchers gave them the goal of identifying 90% of the possible words. They found that individuals with strong promotion goals perceived an incentive as more goal-relevant that was compatible with the strategic inclination to approach matches to the goals (e.g., they would earn an extra dollar—from \$4 to \$5—by finding 90% or more of the words). They found that individuals with strong prevention goals, however, perceived an incentive as more goal relevant that was compatible with the strategic inclination to avoid mismatches to the goals (e.g., they would avoid losing a dollar—keep their \$5—by not missing more than 10% of the words). These results suggest that motivation and performance are enhanced when the strategic nature of the means for attaining the goal is compatible with performers’ regulatory focus while working on the task.

### **II.1.3. Regulatory Focus and Strategic Tendencies**

Individuals who are strategically inclined to approach matches to desired end-states—i.e., those in a promotion focus—should be eager to attain advancement and gains. Individuals who are strategically inclined to avoid mismatches to desired end-states—i.e., those in a prevention focus—should be vigilant to ensure safety and non-losses (Higgins, 1997, 2000). Crowe and Higgins (1997) expected this difference in self-regulatory state to be related to differences in strategic tendencies.

In the memory task of signal detection, Crowe and Higgins (1997) found that individuals in a state of eagerness from a promotion focus wanted especially to accomplish “hits” (e.g., saying yes when a signal was presented) and to avoid “errors of omission” (e.g., saying no when a signal was presented) or “misses” (i.e., a loss of accomplishment). In contrast, individuals in a state of vigilance from a prevention focus wanted especially to attain “correct rejections” (e.g., saying no when there was no signal) and to avoid “errors of commission” (e.g., saying yes when there was no signal) or “false alarms” (i.e., making a mistake).

This means that participants in the promotion focus condition would try to recognize as many items as possible, producing an inclination to say yes (a risky bias); participants in the prevention focus condition should try to not commit mistakes, producing an inclination to say no (a conservative bias). The results highlight that people generally approach desired end-states using different strategic means. Moreover, the results show that the promotion strategic inclination to approach matches involves tendencies to both ensure hits and prevent errors of omission. And in contrast, they show that the prevention strategic inclination to avoid mismatches involves tendencies to both ensure correct rejections and prevent errors of commission (Higgins, 1997).

#### **II.1.4. Regulatory Focus and Emotions**

Other studies have shown that regulatory focus also underlies the different types and intensity of pleasure (pain) that people experience from (not) attaining their goals (Higgins, Grant, & Shah, 2003; Higgins, Shah, & Friedman, 1997; Idson et al., 2000). According to those studies, on one hand, promotion-related success (e.g., actual-ideal congruency) elicits more intense, high-arousal cheerfulness-related emotions that reflect one's improved circumstances. Prevention-related success (e.g., actual-ought congruency) elicits less intense, low-arousal quiescence-related emotions that reflect one's more secure circumstances.

On the other hand, promotion-related failure (e.g., actual-ideal discrepancy) elicits less intense, low-arousal dejection-related emotions that reflect one's unimproved circumstance. In contrast, prevention-related failure (e.g., actual-ought discrepancy) elicits more intense, high-arousal agitation-related emotions that reflect one's less secure circumstances. The findings of these studies demonstrate how regulatory focus goes beyond the hedonic principle in accounting for variability in the quality and intensity of people's emotional experiences, and in their emotional responses to attitude objects (Higgins, 1997).

#### **II.1.5. Summary of Regulatory Focus Theory**

To sum up, Figure 1 summarizes the different sets of psychological variables that have distinct relations to promotion focus and prevention focus (see Higgins, 1997). On the input side (the left side of Figure 1), nurturance needs, strong ideals, and situations involving gains/non-gains induce a promotion focus; a prevention focus is induced by security needs, strong oughts, and situations involving non-loss/loss. On the output side (the right side of Figure 1), a promotion focus yields sensitivity to the presence or

absence of positive outcomes and approach as strategic means; a prevention focus yields sensitivity to the absence or presence of negative outcomes and avoidance as strategic means.

Furthermore, the promotion strategic inclination to approach matches involves tendencies to both ensure hits and evade errors of omission; the prevention strategic inclination to avoid mismatches involves tendencies to both ensure correct rejections and evade errors of commission. Lastly, the success and failure of the promotion focus give rise to either the cheerfulness and dejection emotions, respectively; the success and failure of the prevention focus give rise to the quiescence and agitation emotions, respectively.

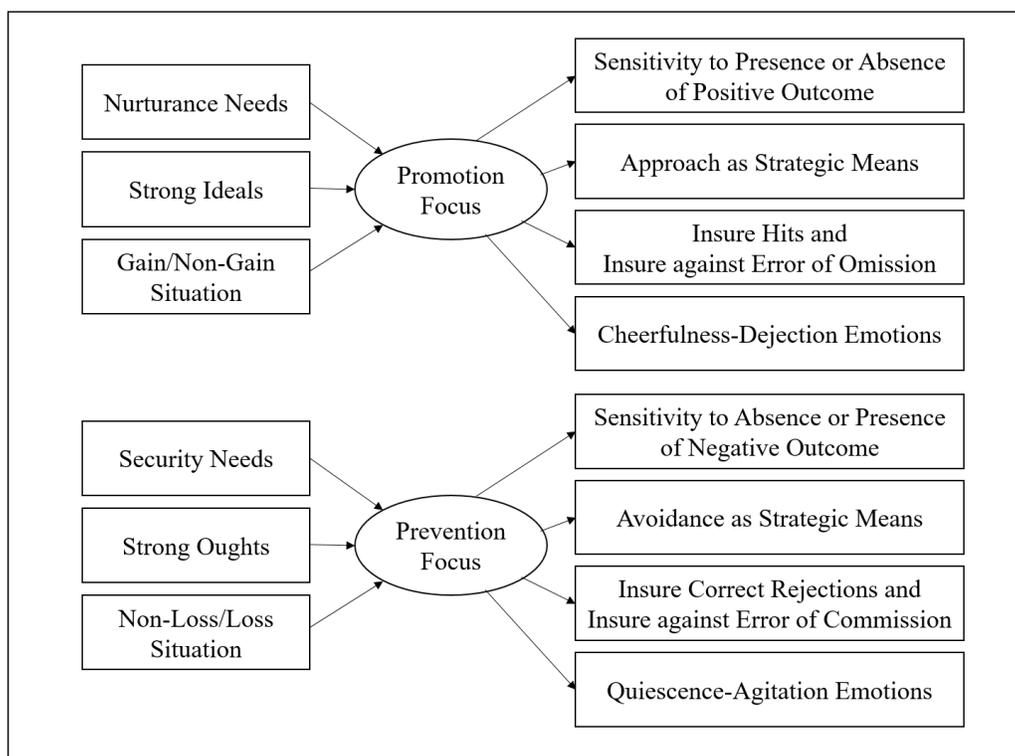


Figure 1: Psychological Variables with Distinct Relations to Promotion Focus and Prevention Focus (see Higgins, 1997)

## **II.2. REGULATORY FIT AND VALUE TRANSFER**

### **II.2.1. Regulatory Fit: When the Manner of Goal Pursuit Sustains a Regulatory Orientation**

The concept of “regulatory fit” arises from the relationship between a person’s regulatory goal orientation and the strategic means used to pursue the goal. Regulatory fit occurs when individuals pursue goals in a manner that sustains their chronic or momentary regulatory focus. When there is a fit, people engage more strongly in what they are doing and “feel right” about it (Cesario, Grant, & Higgins, 2004; Higgins, 2000). According to previous literature, the regulatory fit influences the strength of value experience—how good or how bad one feels about something—independently of the pleasure and pain experiences that are associated with outcomes. And this value experience can transfer to a subsequent evaluation of an object (Cesario et al., 2004; Higgins, 2000; Higgins et al., 2003).

For example, regulatory fit increases strength of engagement and subsequent task performance. Förster, Higgins, and Idson (1998) found that engagement, as measured by either persistence on an anagram task or arm-pressure intensity while doing the task, was stronger in the fit conditions where the regulatory focus of the participants varied chronically or was induced experimentally. Spiegel, Grant-Pillow, and Higgins (2004) also found that the regulatory fit helps enhance task performance by bridging the gap between intentions and actions. Specifically, promotion-focused participants performed better when they prepared eager plans of when, where, and how to do the report rather than vigilant plans. For prevention-focused participants, the reverse was true. Indeed, participants in the fit conditions were almost 50% more likely to turn in their reports than those in the non-fit conditions.

Furthermore, there are studies showing that people are willing to spend more money on an object they have chosen when the decision was made with higher regulatory fit (Avnet & Higgins, 2003; Higgins et al., 2003). For instance, in a study by Higgins et al. (2003), participants with a predominant promotion focus assigned a higher price to the mug and pen in the eager condition (e.g., what they would gain by choosing the objects) than in the vigilant condition; participants with a predominant prevention focus assigned a higher price in the vigilant condition (e.g., what they would lose by not choosing the objects) than in the eager condition.

In line with accounts of regulatory fit and value transfer, several studies also examined how this feeling of rightness is transferred in a persuasion context. Spiegel et al. (2004), for example, had participants read either a promotion-framed (e.g., the benefits of complying) or prevention-framed (e.g., the costs of not complying) health message that contained the same information urging them to eat more fruits and vegetables. Participants in the fit condition ate approximately 20% more fruits and vegetables over the following week than those in the non-fit conditions.

Cesario et al. (2004) provided accounts for whether and how this feeling of rightness is transferred in the persuasion context. One possibility is that feeling right could be transferred to one's experience of the message, such that the feeling of rightness is used as evidence in one's evaluation of the message's perceived persuasiveness; in this case, perceived message persuasiveness would be enhanced under conditions of fit. Another possibility is that the feeling right experience could be transferred directly to one's opinion of the topic of the message, such that this experience is used as information in one's evaluation of the advocated position; under conditions of fit, this would result in more message-congruent attitudes.

## **II.2.2. Regulatory Fit: When the Manner of Goal Pursuit is Compatible with Other Theoretical Framework**

Follow-up research has extended the notion of regulatory fit by seeking new types of relationship of regulatory focus with other theoretical frameworks. For example, the concept of promotion and prevention focus is associated/compatible with the one of independent and interdependent self-construal (Aaker & Lee, 2001; Kareklas, Carlson, & Muehling, 2012; Pounders, Lee, & Mackert, 2015), distant and proxiam tempoal orientation (Kees, Burton, & Tangari, 2010; Mogilner, Aaker, & Pennington, 2008; Pennington & Roesse, 2003), high (e.g., abstract), and low (e.g., concrete) construal level (Keller, Lee, & Sternthal, 2004; Lee, Keller, & Sternthal, 2010), self- and response-efficacy (Keller, 2006; Liu, 2008), additive and subtractive conterfactual thinking (Roesse, Hur, & Pennington, 1999), as well as relational and item-specific elaboration (Zhu & Meyers-Levy, 2007).

In addition, the concept of promotion and prevention focus is also associated/compatible with the following: one of the maximal and minimal comparison claims (Jain, Agrawal, & Maheswaran, 2006), change and stability (Liberman, Idson, Camacho, & Higgins, 1999), creativity and self-control (Freitas, Liberman, & Higgins, 2002; Friedman & Förster, 2001), intrinsic and extrinsic motivation (Gallagher & Updegraff, 2011; Grant & Higgins, 2003; Molden & Miele, 2008), affective and substantive assessment (Avnet & Higgins, 2006), and hedonic and utilitarian benefit (Lin & Shen, 2012; Micu & Chowdhury, 2010; Roy & Ng, 2012). According to these studies, individuals' chronic or momentary regulatory focus should either sustain or diminish the effects of other theoretical concpets depending on the regualtory fit or non-fit. The following section provides a discussion of the relationship of regulatory focus with each of other theoretical frameworks.

### ***II.2.2.1. Regulatory Fit with Self-Construal***

Regulatory focus has goal compatibility with self-construal. Individuals having an independent self-construal try to distinguish themselves from others and have a desire to succeed relative to others. In contrast, individuals having a dependent self-construal attempt to harmoniously fit in with others through fulfilling their obligations and responsibilities or avoiding mistakes (Markus & Kitayama, 1991; Singelis, 1994). Therefore, the former (people with an independent self-construal) tend to focus on the positive features of the self and potential gain situations. The latter (people with a dependent self-construal) tend to focus on potentially negative aspects of the self and possible loss situations. Based on this goal comparability assumption, several studies empirically supported that independent self-construal fits better with a promotion focus whereas interdependent self-construal fits better with a prevention focus (Aaker & Lee, 2001; Kareklas et al., 2012; Markus & Kitayama, 1991; Pounders et al., 2015; Singelis, 1994).

### ***II.2.2.2. Regulatory Fit with Temporal Orientation***

Several studies have also reported that individuals' temporal perspective (present vs. future orientation) guides their goal orientation in a variety of ways. For example, Pennington and Roese (2003) reported that when individuals thought a final exam period was approaching, they placed greater weight on promotion goals than prevention goals. Mogilner et al. (2008) also found that promotion-framed products were more appealing when their purchase happened in the future while prevention-framed products were preferred when their purchase occurred in the present. Therefore, these studies supported that a promotion focus is more compatible with a distant temporal orientation than a

proximal one; for a prevention focus, the reverse is true (Kees et al., 2010; Mogilner et al., 2008; Pennington & Roese, 2003).

### ***II.2.2.3. Regulatory Fit with Construal Level***

Lee et al. (2010) examined how promotion and prevention foci can be related to the level of mental representation—construal level—by testing whether the persuasive effect of the message framed with high- or low-level construal depends on the recipients' regulatory focus. The authors found that promotion-focused individuals experienced fit when exposed to the message that construed the means of goal pursuit at a high level. This is because higher level construal messages specify why something is done and the desirability aspect of an activity; such messages provide promotion people with a basis for considering multiple ways of achieving the goal. In contrast, prevention-focused individuals experienced fit when exposed to messages that construe the means of goal pursuit at a low level. This is because lower level construal messages specify how something is done and the feasibility aspect of an activity; such messages help prevention people limit errors of commission. This study also revealed that the fit leads to more favorable attitudes and enhanced performance on a subsequent task through increasing engagement, message-processing fluency, and reaction.

### ***II.2.2.4. Regulatory Fit with Response-/Self-Efficacy***

Another stream of research suggested that a person's regulatory focus may determine the weights for response and self-efficacy (Keller, 2006; Liu, 2008). These studies found that promotion-related eagerness and willingness to take risks fit better with self-efficacy appraisals (describing easiness of undertaking the proposed action); prevention-related vigilance and lower tolerance of making mistakes work better with

response-efficacy appraisals (describing the effectiveness of the proposed action). Consequently, the regulatory-efficacy fit was found to enhance the persuasive effects of health communication, especially for diet and solar protection (Keller, 2006) and flossing (Liu, 2008).

#### ***II.2.2.5. Regulatory Fit with Cognitive Mechanism***

Several studies have reported how regulatory focus underlies different types of cognitive mechanisms. Roese et al. (1999) examined the relationship between regulatory focus and counterfactual thinking and found that promotion (prevention) participants were more likely to generate additive (subtractive) counterfactuals centering on the alteration of actions (inactions) and causal sufficiency (causal necessity). In turn, promoting people to engage in additive (subtractive) counterfactual thinking led them to become promotion (prevention) focused.

Zhu and Meyers-Levy (2007) also supported the fit between regulatory focus and the types of elaboration. Promotion-focused individuals engage in relational elaboration, which entails identifying commonalities or abstract relationships among disparate items. Prevention-focused individuals engage in item-specific elaboration which involves focusing on specific attributes of each item independent of others. Consequently, this fit contributed to enhancing their performance on the task.

#### ***II.2.2.6. Regulatory Fit with Types of Comparison***

Jain et al. (2006) investigated the effects of regulatory focus on responses to different comparative frames. They found that promotion-focused individuals were more persuaded by a maximal claim (e.g., “brand A is superior to brand B”), while prevention-focused individuals were either equally persuaded by the two frames or more persuaded

by a minimal claim (e.g., “brand A is equivalent or similar to brand B”). For promotion-focused people, a maximal frame simply represented a gain over a minimal frame, thus inducing more favorable elaboration and greater persuasion. However, for prevention-focused individuals, a maximal frame represented either a “no loss” or a “deviation from the norm.” The “no loss” representation led to maximal and minimal frames being equally persuasive. The “deviation from the norm” representation led to greater negative elaboration on maximal frames, making them less persuasive than minimal frames.

#### ***II.2.2.7. Regulatory Fit with Stability/Change***

Regulatory focus was examined in relation to two situations involving choice between stability and change (e.g., task substitution and endowment). Liberman et al. (1999) found that individuals in a prevention focus were more inclined than individuals in a promotion focus to resume an interrupted task rather than to do a substitute task. Also, individuals in a prevention focus (but not their promotion-focus counterparts) exhibited a reluctance to exchange currently or previously possessed objects. This means that the promotion focus is related to openness to change, whereas the prevention focus is associated with a preference for stability.

#### ***II.2.2.8. Regulatory Fit with Creativity/Self-control***

The literature also discusses creativity and self-control in relation with the regulatory focus. Friedman and Förster (2001) supported that the risky, explorative processing style elicited by promotion cues facilitated creative thought, relative to the risk-averse, perseverant processing style elicited by prevention cues. Moreover, Freitas et al. (2002) provided evidence that resisting tempting diversions from task completion, thus affecting task enjoyment and performance, better fits with a prevention focus than a

promotion focus. Findings from these two studies showed that a promotion focus is more compatible with creativity-related activities; activities requiring self-control and patience fit better with a prevention focus.

#### ***II.2.2.9. Regulatory Fit with Motivation***

Several studies have also examined whether the experience of promotion-focused goal pursuit would more strongly resemble the autonomous feelings of intrinsic motivation, whereas the experience of prevention-focused goal pursuit would more strongly resemble the controlled feelings of extrinsic motivation. Grant and Higgins (2003) supported this prediction by finding a small but significant correlation ( $r = .21$ ) between the strength of people's general promotion concerns and their global feelings of autonomy. The authors found no correlation ( $r = .01$ ) between the strength of their general prevention concerns and their feelings of autonomy. In message framing literature, Gallagher and Updegraff (2011) showed that participants' responses were more favorable when promotion-focused messages were combined with intrinsic goals (e.g., feel better) and when prevention-focused messages were matched with extrinsic goals (e.g., look better).

#### ***II.2.2.10. Regulatory Fit with Attribution***

Some studies have investigated how regulatory focus is related to the use of feelings versus reasons to evaluate and choose a product. Avnet and Higgins (2006) found that when promotion-focused people relied on feelings rather than reason the chosen product's monetary value increased; the reverse was true for prevention-focused people. This result replicated a previous finding that when forming evaluations, prevention-oriented consumers relied more on the substance of a message while

promotion-oriented consumers relied more on subjective affective responses to a message (Pham & Avnet, 2004).

#### ***II.2.2.11. Regulatory Fit with Hedonic/Utilitarian Value***

More recently, several studies have found that greater persuasion effect is observed when a product's or message's hedonic or utilitarian value is compatible with a congruent regulatory focus. Promotion-focused individuals, for example, preferred brands with hedonic attributes; prevention-focused individuals preferred a brand with utilitarian attributes (Lin & Shen, 2012; Roy & Ng, 2012). In the same vein, Micu and Chowdhury (2010) also verified that for hedonic products promotion-focused messages were more effective than prevention-focused messages; the opposite was true for utilitarian products.

In summary, regulatory fit occurs when individuals pursue goals in a manner that sustains their chronic or momentary regulatory foci. A feeling of rightness from the regulatory fit is shown to be positively transferred to subsequent task engagement, performance, judgment, decision, and persuasion. The effects of regulatory fit have been supported in various contexts by showing compatible relationships with other theoretical frameworks in various fields, including psychology, marketing, and communication.

### **II.3. FOUR SELF-REGULATORY FORMS AND FOUR PSYCHOLOGICAL SITUATIONS**

#### **II.3.1. Four Types of Regulatory Forms**

The concept of promotion-versus-prevention focus has long been misunderstood as a simple distinction between approach and avoidance motivations (Elliot & Fryer, 2008; Higgins et al., 1994; Molden & Miele, 2008). To find the difference, it is first necessary to understand two basic distinctions regarding self-regulation. One is the

“valence” of the end-state that functions as the reference value for the movement (positive vs. negative). The other is the “direction” of the motivated movement (approach vs. avoidance; Higgins et al., 1994).

Based on these two distinctions, Carver and Scheier (1990) proposed that when a self-regulatory system has a desired end-state as a reference value, the system reduces discrepancies and involves attempts to move the currently perceived actual self-state as close as possible to the desired reference point. When a self-regulatory system has an undesired state as a reference value, the system amplifies discrepancies and involves attempts to move the currently perceived actual self-state as far as possible from the undesired reference point. They referred to the former (discrepancy-reducing) system as an approach system and the latter (discrepancy-amplifying) system as an avoidance system.

However, in the self-regulatory model of Carver and Scheier’s (1990), approach or avoidance concerns the direction of the movement in relation to either a desired end-state or an undesired end-state. Higgins et al. (1994) considered the alternative means for reducing discrepancies in relation to desired end-states and amplifying discrepancies in relation to undesired end-states. The result is the creation of four forms of self-regulation (see Table 1).

When people are motivated to move their actual self as close as possible to a desired end-state, for example, they can narrow the gap via two means—approach self-states that match the desired end-state or avoid self-states that mismatch the desired end-state. When people are motivated to move their actual self as far as possible from an undesired end-state, they can widen the gap via two means—approach self-states that mismatch the undesired end-state or avoid self-states that match the undesired end-state (Higgins et al., 1994).

		Valence of End-State as Reference Point	
		Desired (Discrepancy Reducing)	Undesired (Discrepancy Amplifying)
Direction of Means	Approach	Approaching <u>matches</u> to <u>desired end-states</u> (= Gain)	Approaching <u>mismatches</u> to <u>undesired end-states</u> (= Non-Loss)
	Avoidance	Avoiding <u>mismatches</u> to <u>desired end-states</u> (= Non-Gain)	Avoiding <u>matches</u> to <u>undesired end-states</u> (= Loss)

Table 1: Four Types of Regulatory Form (see Higgins, Roney, Crowe, & Hymes, 1994)

More importantly, Higgins et al. (1994) suggested that a promotion focus (i.e., ideal self-regulation) would involve a concern to pursue any means to reduce discrepancies to desired end-states with a predilection for both approaching matches (gains) and avoiding mismatches to desired end-states (non-gains); conversely, a prevention focus (i.e., ought self-regulation) would involve a concern to pursue any means to amplify discrepancies between undesired end-states with a predilection for both avoiding matches (losses) and approaching mismatches to undesired end-states (non-losses).

Molden, Lee, and Higgins (2008) indicated that promotion-focused individuals consider themselves as approaching the presence of positive outcomes (gains) and avoiding the absence of positive outcomes (non-gains); prevention-focused individuals consider themselves as avoiding the presence of negative outcomes (losses) and pursuing the absence of negative outcomes (non-losses). Molden and Miele (2008) suggested that although promotion (prevention) concerns involve the presence and absence of positive (negative) outcomes, this is not equivalent to a focus on desired (undesired) end-states.

Instead, promotion and prevention concerns should be considered in terms of determining whether a desired or undesired end-state is represented in terms of growth and advancement or safety and security (Molden et al., 2008; Molden & Miele, 2008). The distinction between promotion and prevention concerns may appear similar to several other distinctions in literature, yet its theoretical foundations are unique. For this reason, regulatory focus theory should be distinguished from self-discrepancy theory (Higgins, 1991), which considers only desired end-states as reference points and the motivational distinction between a desire to approach success and a desire to avoid failure (Carver & Scheier, 1990).

### **II.3.2. Four Types of Psychological Situations**

As noted above, Higgins and colleagues (1994) identified four types of self-regulation form. These types are functions of the end-state valence being a reference point and the direction of means. The four types are as follows: approaching matches to desired end states (i.e., gains), avoiding mismatches to desired end states (i.e., non-gains), avoiding matches to undesired end states (i.e., losses), and approaching mismatches to undesired end states (i.e., non-losses). Each self-regulation form reflects the four psychological situations—gains, non-gains, losses, and non-losses.

According to Brendl et al.'s (1995) interpretation, a gain is an instance of the general category presence of positive outcomes (PP); a non-gain is an instance of the category absence of positive outcomes (AP); a loss is an instance of the category presence of negative outcomes (PN); and a non-loss is an instance of the category absence of negative outcomes (AN). These four categories differ in terms of three factors: valence quality (or overall valence), outcome focus, and the presence-absence of an outcome (Brendl et al., 1995; Higgins & Tykocinski, 1992).

On one hand, both a gain (PP) and a non-loss (AN) are both net gains that have positive overall valence, whereas a loss (PN) and a non-gain (AP) are both net losses that have negative overall valence. Therefore, overall valence of the psychological situation depends on the degree of net gains or net losses, and is referred to as valence quality (Brendl et al., 1995).

On the other hand, a gain (PP) and a non-gain (AP) are both anchored around a gain (i.e., a positive outcome) as a reference event, whereas a loss (PN) and a non-loss (AN) are both anchored around a loss (i.e., a negative outcome) as a reference event. This means that experiencing an event as a gain (PP) or a non-gain (AP) interprets the event with a positive outcome focus, while experiencing an event as a loss (PN) or a non-loss (AN) interprets the event with a negative outcome focus. Therefore, this dimension of a psychological situation is defined as outcome focus (Brendl et al., 1995).

		Outcome Focus	
		Gain-anchored (Positive Outcome Focus)	Loss-anchored (Negative Outcome Focus)
Overall Valence (= Valence Quality)	Positive	<b>Presence</b> of a positive outcome: pleasure about a gain	<u>Absence</u> of a negative outcome: relief about a non-loss
	Negative	<u>Absence</u> of a positive outcome: disappointed about a non-gain	<b>Presence</b> of a negative outcome: annoyance about a loss
Note: <b>Bold</b> = Present outcome; <u>Underlined</u> = Absent outcome			

Table 2: Four Types of Psychological Situations (see Brendl et al., 1995)

Lastly, the four mental representations can be also distinguished in terms of a presence-absence dimension. Two of the four mental representations represent the presence of an outcome (PP and PN); two of them represent the absence of an outcome (AP and AN). In sum, each pair of mental representations of the gain (PP), non-gain (AP), loss (PN), and non-loss (AN) categories shares one of six features—positive valence quality, negative valence quality, positive outcome focus, negative outcome focus, presence, or absence (see Table 2).

Through the literature review so far, this research has discussed 1) what regulatory focus is as motivational principle; 2) how psychological antecedent and consequent variables are distinctively related to the promotion and prevention systems; 3) when regulatory fit occurs and how a feeling of rightness from the fit is transferred to subsequent engagement, evaluations, performance, and persuasion; 4) how the four types of self-regulation forms are identified; and 5) how these forms reflect the four different types of psychological situations, such as gains, non-losses, non-gains and losses.

In the following section, this research examines previous studies to grasp how researchers have operationalized their promotion and prevention messages by framing the outcome differently. Especially, on the basis of the classification of psychological situations (Brendl et al., 1995), this research discusses how the outcome framed in the message varies in terms of its overall valence (positive vs. negative) and outcome focus (gain-anchored vs. loss-anchored).

## **II.4. REGULATORY-FOCUSED MESSAGE FRAMING**

### **II.4.1. Two Different Dimensions of Framing Regulatory Foci in Persuasive Message**

#### ***II.4.1.1. Overall Valence (= Valence Quality)***

In one stream of research, their promotion and prevention frames are distinguished using difference in overall valence of the outcome. Usually the promotion frame is positively valenced by emphasizing possible gains or non-losses as a result of compliance with the message recommendation. The prevention frame is negatively valenced through focusing on possible losses or non-gains as a result of noncompliance of the message advocacy (Levin, Schneider, & Gaeth, 1998; Meyerowitz & Chaiken, 1987).

As an example, Uskul, Sherman, and Fitzgibbon (2009) specified as the promotion frame a positive final end-state of compliance, “Consistent good flossing leads to more healthy gums and bones that support the teeth.....flossing allows a healthy-looking mouth and smile, and also greater enjoyment of foods and drinks.” For the prevention frame, the authors emphasized a negative final end-state of noncompliance, “If you don’t floss your teeth daily, particles of food remain in the mouth, collecting bacteria, which causes bad breath.....not flossing can be the cause of serious tooth pain and sensitivity.”

However, when considering regulatory-focused message framing in terms of “valence,” overall valence of compliance should be distinguished from the valence where the outcome is anchored. The former is usually referred to as “valence quantity” and the latter is called “outcome focus” (Brendl et al., 1995). O’Keefe and Jensen (2006) defined outcome focus as “kernel state,” that is, a basic, root state mentioned in the message. In the message “If you take your hypertension medication, you will reduce the risk of heart

disease,” the outcome focus (or kernel state) is anchored to the negative meaning of “heart disease.” The overall valence of the message, however, is positive since it emphasizes the desirable end-state of taking medication: reducing the risk of heart disease.

By comparison, the overall valence of the message that “if you don’t follow this recommended diet, you’ll fail to do what you can to have a healthy heart” is negative because it indicates the undesirable end-state of not following the suggested diet. However, its outcome focus (or kernel state) is anchored to “healthy heart,” which has a positive meaning. In this way, it is important to distinguish the overall valence of the final end-state of compliance/noncompliance from the valence of outcome focus (or kernel state).

How previous studies manipulated their promotion-versus-prevention frames in terms of difference in overall valence rather than in outcome focus are shown in the following examples: “If you (do not) eat the right amount of fruits and vegetables, you can (cannot) actively help facilitate overall good health” (Study 1: Cesario et al., 2004); “If you win (lose) this last match, you will win (lose) the championship title and (not) bring home a huge trophy” (Study 2; Aaker & Lee, 2001); “(Not being able to bask) Bask in the warm rays of the sun, (may stand in the way of your) feeling completely happy” (Study 2; Lee & Aaker, 2004).

In those examples, the prevention frames (negative frames) are simply the negations of the promotion frames (positive frames). Therefore, even though both promotion and prevention frames are anchored around a positive outcome focus (or kernel state), such as “overall good health,” “championship title and huge trophy,” and “feeling happy,” the overall valence of these two frames differs in overall valence by

focusing either the desirable positive end-state of compliance or the undesirable negative end-state of noncompliance.

#### ***II.4.1.2. Outcome Focus (= Kernel State)***

In the other stream of research, their promotion and prevention frames are differentially manipulated as a distinction between types of “outcome focus.” In other words, the promotion frame refers to the presence or absence of gains (i.e., gains or non-gains), while the prevention frame refers to the presence or absence of losses (i.e., losses or a non-losses).

For instance, in a study conducted by Micu and Chowdhury (2010), the promotion frame conveyed the following message: “VitaWater is specially formulated to provide the body with an immediate source of energy.” The prevention frame conveyed this one: “Vita Water is specially formulated to reduce the risk of chronic diseases.” Kareklas et al. (2012) also compared the promotion frame (“The Farmer’s Cow helps promote a healthy lifestyle and that studies show that organic milk increases energy levels by providing essential nutrients”) with the prevention frame (“The Farmer’s Cow helps prevent an unhealthy lifestyle, and that studies show that organic milk reduces the risk of disease”).

As shown in the above two studies, overall valence of both promotion and prevention frames is positive because the final end-states of compliance are all positively desirable. However, the promotion frame refers to the presence of gains such as “source of energy” or “healthy lifestyle/essential nutrients.” In contrast, the prevention frame refers to the absence of losses, such as “chronic diseases” or “unhealthy lifestyle the risk of disease.”

Similarly, several studies used what they called gain and loss frames to match the individual's chronic or momentary regulatory focus. Lin and Shen (2012), for example, created for the gain frames, "Gain comfort with a durable backpack" and "Take a chance on having clean and healthy hair." For the loss frames: "Don't get back pains from a flimsy backpack" and "Don't get dandruff and unhealthy hair." Sherman, Mann, and Updegraff (2006) adopted, "Flossing for great breath and healthy gums" and "Flossing to avoid bad breath and gum disease" for gain and loss frames, respectively.

Both the gain and loss frames in these examples reflect the overall positive valence of compliance. However, the kernel state of gain frames are anchored around gains (e.g., comfort; clean and healthy hair; great breath and healthy gums), while the kernel state of loss frames are anchored around losses (e.g., pains; dandruff and unhealthy hair; bad breath and gum disease). To sum up, the literature provides examples of promotion and prevention frames being differentially manipulated in terms of the two distinct dimensions of overall valence (positive vs. negative) and outcome focus (gain-anchored vs. loss-anchored).

#### **II.4.2. Four Types of Regulatory-Focused Message Framing**

When crossing over the two dimensions of message framing found in the literature—overall valence (positive vs. negative) and outcome focus (gain-anchored vs. loss-anchored)—we can identify not two but four outcome frames: gains, non-gains, losses and non-losses (see Table 3). In persuasive messages, positively valenced outcomes may emphasize either the presence of gains, namely "gains" (e.g., "desirable outcome X will be present/obtained") or the absence of losses, namely "non-losses" (e.g., "undesirable outcome Y will be absent/avoided"), both of which result from engaging in the recommended action (e.g., "if you perform the advocated action"). Similarly,

negatively valenced outcomes may emphasize either the absence of gains, namely “non-gains” (e.g., “desirable outcome X will be absent/forgone”) or the presence of losses, namely “losses” (e.g., “undesirable outcome Y will be present/incurred”), both of which result from not engaging in the recommended action (e.g., “if you do not perform the advocated action”).

		Outcome Focus	
		Gain-anchored (positive outcome focus)	Loss-anchored (negative outcome focus)
Overall Valence	Positive	<p><b><u>GAIN: PRESENCE OF POSITIVE OUTCOME</u></b></p> <p>“If you perform the advocated action, desirable outcome X will be present/ obtained.”</p>	<p><b><u>NON-LOSS: ABSENCE OF NEGATIVE OUTCOME</u></b></p> <p>“If you perform the advocated action, undesirable outcome Y will be absent/ avoided.”</p>
	Negative	<p><b><u>NON-GAIN: ABSENCE OF POSITIVE OUTCOME</u></b></p> <p>“If you do not perform the advocated action, desirable outcome X will be absent/forgone.”</p>	<p><b><u>LOSS: PRESENCE OF NEGATIVE OUTCOME</u></b></p> <p>“If you do not perform the advocated action, undesirable outcome Y will be present/ incurred.”</p>

Table 3: Four Types of Regulatory-Focused Message Framing Based on the Two Dimensions of Overall Valence and Outcome Focus

Despite this more refined message distinction, it is found that most previous researchers adopted different operational definitions to engender the two types of regulatory focus in their studies (see Appendix 1). In most previous studies on regulatory-focused message framing, promotion and prevention frames are compared with a variety of dichotomies, such as “gains” and “losses” (e.g., Uskul et al., 2009), “gains” and “non-gains” (e.g., Aaker & Lee, 2001; Lee & Aaker, 2004), or “gains” and “non-losses” (e.g.,

Kareklas et al., 2012; Wang & Lee, 2006). Some researchers even created a promotion and a prevention frame by combining “gains” with “non-losses” (e.g., Cesario et al., 2004) and by combining “losses” with “non-losses” (e.g., McKay-Nesbitt, Bhatnagar, & Smith, 2013). Some researchers even used a non-standard message frame that does not really belong anywhere in the above classification (e.g., double negation: “Don’t Miss Out on Getting Energized/ Don’t Miss Out on Preventing Clogged Arteries.”; see Lee & Aaker, 2004).

These differences in the message operationalization might explain the reasons why past researchers have not always reported consistent findings on the effects of regulatory-focused message framing, why they have difficulties comparing and determining which of these two message frames is more effective in persuasion, and why it is hard to define exactly what promotion and prevention frames are (Bechkoff et al., 2009; Dijkstra et al., 2011; Sacchi & Stanca, 2014; Yi & Baumgartner, 2009; Zhao & Pechmann, 2007).

In this respect, it is necessary and important to consider a fuller picture of regulatory-focused message framing based on the two dimensions of overall valence and outcome focus. Therefore, this research examined the persuasive effects of the four types of regulatory-focused message framing—gains, non-gains, losses, and non-losses.

### **Chapter III: Theoretical Framework**

To predict the persuasive effects of the four types of regulatory-focused message framing, this research focused on the asymmetry in the perception of gains, non-gains, losses, and non-losses. One of the frameworks that underlie the asymmetric perception is prospect theory (Kahneman, Knetsch, & Thaler, 1986). According to prospect theory, losses are experienced more intensely than gains of similar objective magnitude. This phenomenon is referred to as the principle of loss aversion (LA).

The principle of LA asserts that the disutility associated with an outcome that is coded as a loss (e.g., a price increase or a cut in wages) may be greater than the disutility of the same outcome when coded as the elimination of a gain (e.g., cancellation of price reduction or a cancellation of a wage raise), despite the two changes in wealth being identical (Kahneman et al., 1986; 1990, 1991). This notion is well captured by the subjective curve of prospect theory (see Figure 2). As shown in this value function, “non-gains are negative events that are represented in terms of the positive, more shallow part of the value curve (e.g., as moving down the positive part of the curve), and therefore they would be experienced less intensely than losses, which are represented in terms of the steeper loss part of the value curve” (Kahneman et al., 1986, p. 732).

When applying the principle of LA to positive outcomes in the same manner as it has been applied to negative outcomes, non-losses should be perceived as more positive than gains. This is because non-losses are represented in terms of the negative, steep part of the curve (e.g., as moving up the steep, negative part of the curve), whereas gains are represented as moving up the positive, shallow part of the curve (Lieberman et al., 2005, p. 528). Indeed, this prediction has been empirically tested (Bechkoff et al., 2009; Idson et al., 2000; Liberman et al., 2005; Sacchi & Stanca, 2014).

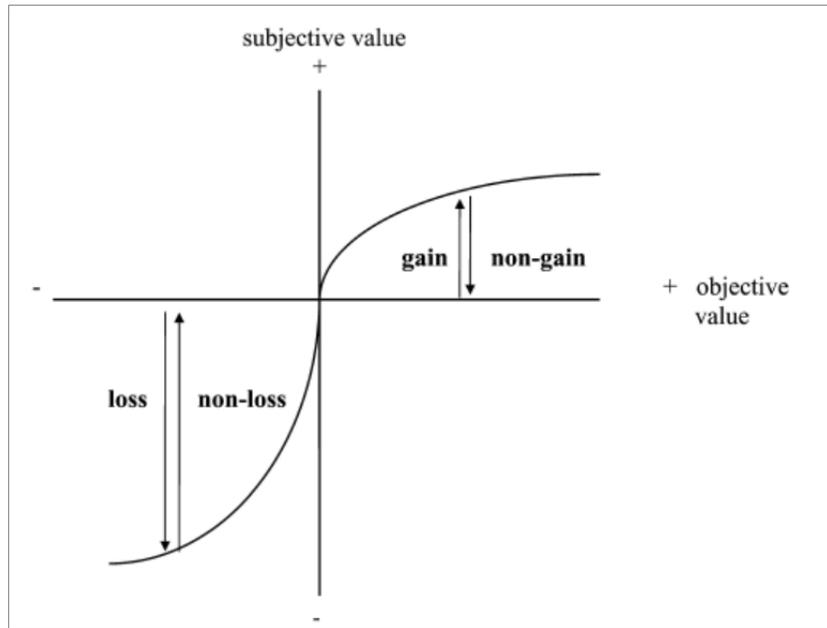


Figure 2: Subjective Value Curve of Prospect Theory (see Kahneman, Knetsch, & Thaler, 1986)

For example, Liberman et al. (2005) attempted not only to replicate the original findings that losses would be more aversive than non-gains, but also to examine the untested prediction, also derived from the principle of LA, that non-losses would be more pleasurable than gains. The authors classified the four scenarios by valence (positive vs. negative) and framing (gain-anchored: vs. loss-anchored), and conducted three studies in the context of evaluation of fairness and concessions in negotiations. As a result, they replicated extant studies in confirming the first prediction but failed to confirm the second prediction.

This finding is opposite the prediction derived from the LA principle, which states that non-losses are evaluated in terms of the relatively steep loss curve and thus be experienced more intensely than gains. It seems that the principle of LA derived from prospect theory is not a sufficient explanation for why gains are more intense than non-

losses (Idson et al., 2000; Liberman et al., 2005). As a possible contributor to this opposite finding, Higgins (1997, 2000) suggested regulatory focus theory.

Regulatory focus theory predicts that because promotion success (gain) is success in achieving a maximal goal (i.e., a standard one hopes to achieve), it should be experienced more intensely than prevention success (non-loss), which is success in achieving a minimal goal (i.e., a standard one must meet). It also predicts that because prevention failure (loss) is failure to achieve a minimal goal (i.e., a standard one must meet), it should be experienced more intensely than promotion failure (non-gain), which is failure to achieve a maximal goal (i.e., a standard one hopes to achieve; Brendl & Higgins, 1996; Idson et al., 2000).

In three studies, Idson et al. (2000) supported the theorization of regulatory focus theory. Study 1a showed that participants anticipated feeling better about outcomes framed as a gain (e.g., getting a discount) than a non-loss (e.g., not paying a penalty); they anticipated feeling worse about outcomes framed as losses (e.g., paying a penalty) than non-gains (e.g., not getting a discount). Study 1b showed that participants chose to experience a gain rather than an objectively similar non-loss and chose to experience a non-gain rather than an objectively similar loss. Study 2 examined anticipated responses to prospective success or failure on an anagram task. Participants anticipated feeling better about a success framed as a gain than a non-loss and anticipated feeling worse about a failure framed as a loss than a non-gain.

Regulatory focus theory not only makes predictions concerning which outcome experiences will be more intense, but it also makes specific predictions about which types of emotions will be more intense (Higgins, 1998; Higgins et al., 2003; Higgins et al., 1997). Idson et al. (2000) provided considerable evidence that promotion success (gain) produces relatively high-intensity joy (or other cheerfulness-related emotion) and

prevention success (non-loss) produces relatively low-intensity calmness (or other quiescence-related emotion); promotion failure (non-gain) produces relatively low-intensity sadness (or other dejection-related emotion), and prevention failure (loss) produces relatively high-intensity tenseness (or other agitation-related emotion). In this fashion, regulatory focus theory provides alternative explanation for why the pleasure of a gain is stronger than that of a non-loss and the pain of a loss is stronger than that of a non-gain.

What might also contribute to the asymmetry in the perception is the “feature positive” effect (Agostinelli, Sherman, Fazio, & Hearst, 1986; Hearst, 1984). According to this idea, present features are experienced more intensely than absent features. Under the assumption that non-gains and non-losses are interpreted as absent features, those are experienced less intensely than losses and gains, respectively. Idson et al. (2000) also indicated that the outcome framing differed with respect to describing the experiences in terms of something happening versus not happening. Participants describe, for example, the gains and losses in terms of something happening (“I gained” or “I lost”); they describe the non-gains and non-losses in terms of something not happening (“I did not gain” or “I did not lose”). For these reasons, gains loom larger than non-losses and losses larger than non-gains.

Another related notion is “mental addition” effects. Here events simulated by mental addition are perceived as more impactful than events simulated by mental subtraction (Brendl et al., 1995; Dunning & Parpal, 1989). Perhaps mentally simulating non-gains and non-losses involves a mental subtraction of the effect of gains and losses, thus reducing intensity. Of particular relevance here are the findings that participants discriminated more between different amounts of gains and between different amounts of losses than between different amounts of non-gains and different amounts of non-losses

(Brendl et al., 1995). That is, it is easier to imagine gains (losses) than non-losses (non-gains). Thus imagining the former produces a more positive (negative) subjective feeling even if that feeling is of the same objective magnitude as that of imagining the latter.

Based on regulatory focus theory, along with other alternative accounts (e.g., feature positive and mental addition effects), the current research predicts that the four types of outcome framed in regulatory-focused message will give rise to the asymmetry in subjective feelings. Hence, gains will loom larger than equivalent non-losses and losses will loom larger than equivalent non-gains (see Figure 3). Thus, the following hypotheses are proposed:

*H1: A message framed as a gain will produce stronger pleasure (i.e., more positive subjective feelings) than will a message framed as a non-loss.*

*H2: A message framed as a loss will produce stronger pain (i.e., more negative subjective feelings) than will a message framed as a non-gain.*

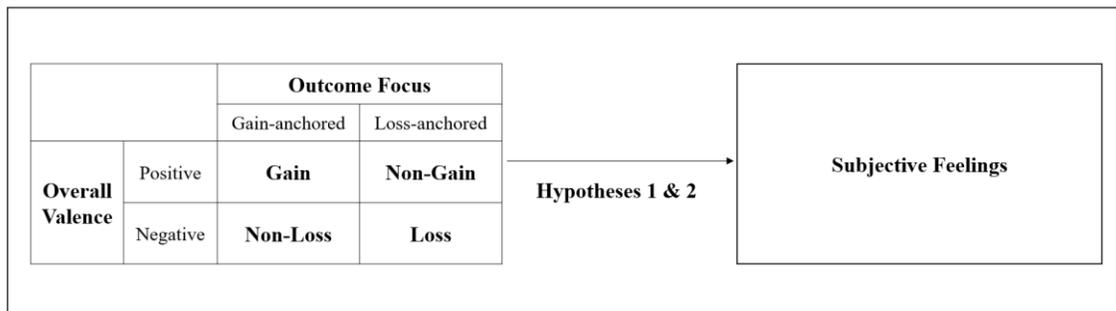


Figure 3: Asymmetry in Subjective Feelings of the Four Types of Regulatory-Focused Message Framing

In addition, this research suggests that the four types of outcome framed in regulatory-focused messages would also produce differences in ad effectiveness. Several

studies have compared the persuasive effects of messages framed as gains, non-gains, losses, and non-losses. For example, Dijkstra et al. (2011) verified the feature positive effects of message framing in the context of fruit and vegetable consumption; the authors showed that messages about present outcomes (gains, losses) were more persuasive than those about absent outcomes (non-gains, non-losses). This research also found that as between the messages about present outcomes, the gain frame was more persuasive than the loss frame, but only when the message was personalized to increase self-relevance.

Yi and Baumgartner (2009) also reported consistent findings that the gain and loss frames were more effective at increasing fruit and vegetable consumption than the non-loss and non-gain frames. Bechkoff et al. (2009) revealed that the non-gain and non-loss frames were more difficult to imagine, were less believable, and formed less extreme attributions for price fluctuations than did the gain and loss frames. The results suggested that playing an important role in insensitivity to non-gains and non-losses is omission neglect.

In this way, researchers have tried to understand whether frames involving the presence of gains or the presence of losses are more persuasive than frames involving the absence of gains or the absence of losses. However, those studies mainly relied on the accounts of feature positive or omission neglect effects instead of regulatory focus theory. More importantly, findings from those studies have raised an important question: What is the mechanism that leads to increased persuasion?

In this respect, under the framework of regulatory focus, the current research further examines the specific mechanisms underlying the persuasion effects of the four types of message framing by identifying the mediating role of subjective feelings. Specifically, this research predicts that the four types of outcomes framed in regulatory-focused message framing systematically induce different intensity of subjective feelings

among the message recipients. These asymmetries in subjective feelings in turn lead to differences in ad effectiveness. The intense pleasure of gains is more effective in terms of persuasion, as is the intense pain of losses (see Figure 4). Based on these predictions, the following hypotheses are suggested:

*H3: A message framed as a gain will produce more positive (a) attitudes towards the ad and (b) attitudes towards the nonprofit organization, as well as greater (c) willingness to sponsor, and (d) intentions to donate than will a message framed as a non-loss.*

*H4: A message framed as a loss will produce more positive (a) attitudes towards the ad and (b) attitudes towards the nonprofit organization, as well as greater (c) willingness to sponsor, and (d) intentions to donate than will a message framed as a non-gain.*

*Subjective feelings will mediate the effect of regulatory-focused message framing on ad effectiveness, such that*

*H5: a message framed as a gain (vs. a non-loss) will produce stronger pleasure, and the experience of stronger pleasure will lead to more positive (a) attitudes towards the ad and (b) attitudes towards the nonprofit organization, as well as greater (c) willingness to sponsor, and (d) intention to donate.*

*H6: a message framed as a loss (vs. a non-gain) will produce stronger pain, and the experience of stronger pain will lead to more positive (a) attitudes towards the ad and (b) attitudes towards the nonprofit organization, as well as greater (c) willingness to sponsor, and (d) intentions to donate.*

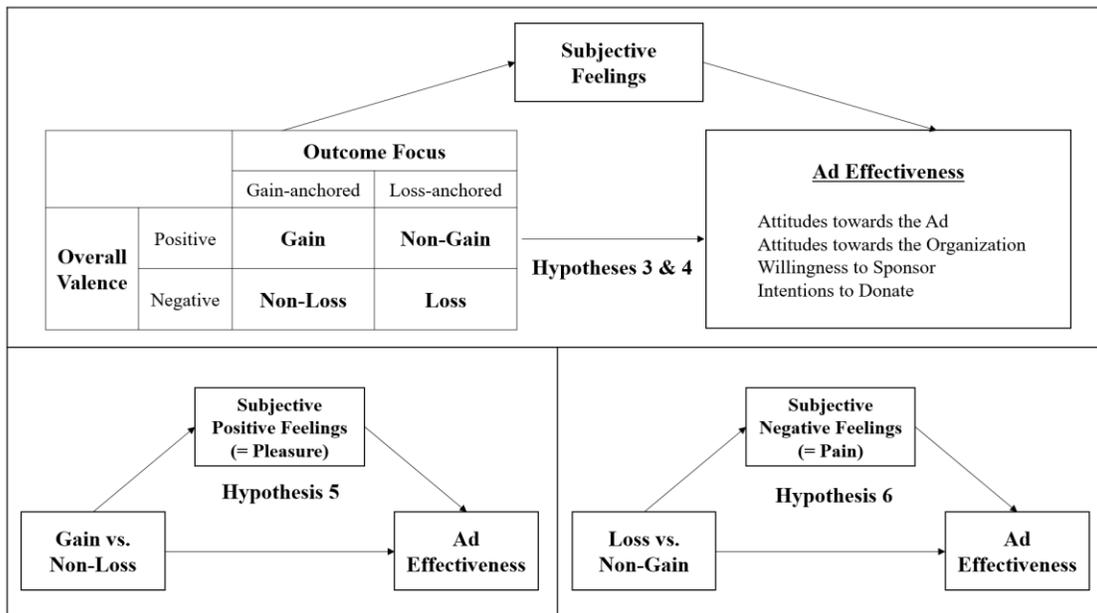


Figure 4: Mediating Role of Subjective Positive/Negative Feelings on the Relationship between Message Framing and Ad Effectiveness

To provide additional support for the underlying processes and theorizing of this research, this work also examined the moderating role of individuals' motivational state. Based on regulatory fit literature (Cesario et al., 2004; Higgins, 2000; Higgins et al., 2003), this research suggests that the effects of messages framed in terms of gains, non-gains, losses, and non-losses depends on their congruence with the individual's regulatory focus.

Findings of Sacchi and Stanca (2014) provided sound evidence for better informed predictions of how the asymmetry in the subjective impacts of the gain versus non-loss and loss versus non-gain is affected by the message recipient's momentary regulatory focus. Across the two studies, Sacchi and Stanca examined the perceived satisfaction and luck of either actual or hypothetical changes in monetary wealth from the gambling task, while manipulating participants' regulatory foci. This research found that

the gain versus non-loss asymmetry in perceived satisfaction is stronger only for promotion-primed participants, whereas the loss versus non-gain asymmetry in perceived dissatisfaction is stronger only for prevention-primed participants.

Regarding adolescents' intentions to not smoke, Zhao and Pechmann (2007) found null effects of antismoking advertisements framed as gains (e.g., attain social approval), non-gains (e.g., forgo social approval), non-losses (e.g., avoid social disapproval), and losses (e.g., incur social disapproval). This was the case except when their chronic and situational regulatory foci were aligned with the message's regulatory focus and overall valence. Specifically, the gain (loss) frame was the most effective for promotion (prevention)-focused adolescents; the other message frames were ineffectual relative to a control condition. This is because viewers perceived as irrelevant the ad messages that did not match their regulatory focus. Hence, they ignored them without further processing, as shown in their mediation analysis.

Based on these previous findings, this research predicted that a message coded as gains versus non-losses and losses versus non-gains is not always likely to make a difference in persuasion. The subjective utility and disutility associated with the message advocacy depend on the synergy between its frame (overall valence and outcome focus) and the recipient's motivational state—referred to as momentary regulatory focus (see Figure 5). Accordingly, the following hypotheses are thus put forth:

*Individuals' momentary regulatory foci will moderate the effect of regulatory-focused message framing on their global and relatively enduring evaluations towards helping others such that:*

*H7: the gain versus non-loss asymmetry in evaluations of helping behavior will be significant only when individuals are in a promotion focus, with the message*

*framed as gains (vs. non-losses) being more positive; for those in a prevention focus, this asymmetry between gain and loss frames will disappear, and H8: the loss versus non-gain asymmetry in evaluations of helping behavior will be significant only when individuals are in a prevention focus, with the message framed as losses (vs. non-gains) being more positive; for those in a promotion focus, this asymmetry between loss and non-gain frames will disappear.*

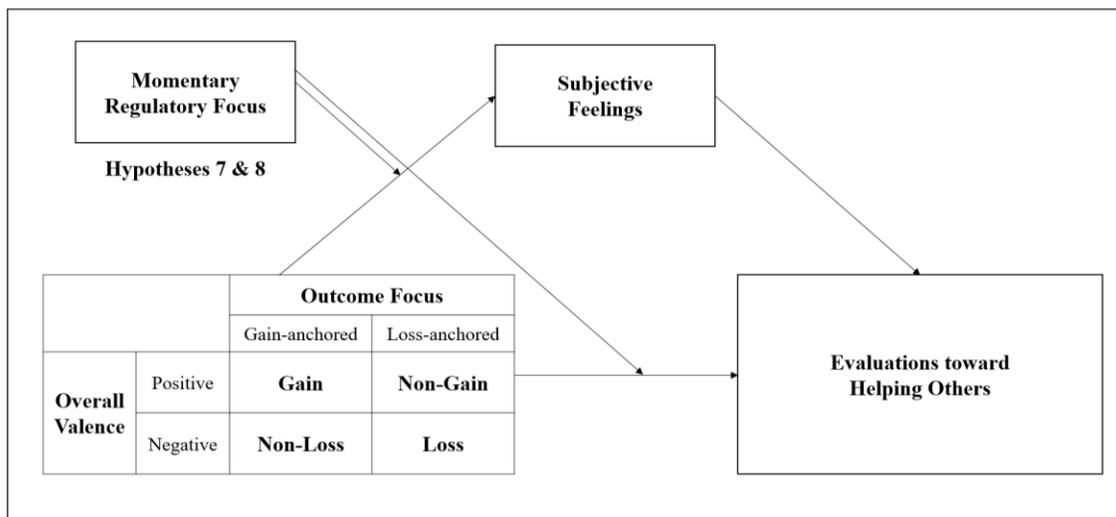


Figure 5: Moderating Role of Individuals' Momentary Regulatory Focus on the Persuasive Effects of Message Framing on Evaluations towards Helping Others

To test these proposed hypotheses, this research conducted three studies. Studies 1 and 2 examined how the four types of regulatory-focused message framing could systematically affect the intensity of subjective feelings among message recipients (Hypotheses 1 and 2). Studies 1 and 2 further identified the mechanism through which the four types of message framing could make a difference in ad effectiveness (Hypotheses 3 and 4) through changes in subjective feelings among message recipients

(Hypotheses 5 and 6). Lastly, Study 3 investigated how individuals' motivational state (i.e., momentarily induced regulatory focus) could moderate the effects of the four types of message framing on attitudes towards helping behavior (Hypotheses 7 and 8). In testing these hypotheses, this research determines whether the persuasive effects of an advertisement may be contingent on the message recipient's regulatory focus (promotion-primed vs. prevention-primed), the message's overall valence (positive vs. negative) and outcome focus (gain-anchored vs. loss-anchored), or all of them functioning synergistically. In Chapters 4~6, the experimental research design, methods, and results from each of three studies are described in detail.

## Chapter IV: Study 1

### IV.1. RESEARCH DESIGN

The goal of Study 1 was to examine how the four types of regulatory-focused message framing could systematically affect the intensity of subjective feelings among message recipients. Based on regulatory focus theory, Study 1 predicted that the pleasure of the gain frame would be more intense than that of the non-loss frame and that the pain of the loss frame would be more intense than that of the non-gain frame (H1~H2). Table 4 summarizes these predictions.

Study 1 further suggested that the four types of regulatory-focused message framing would result in different intensity levels of subjective feelings and that greater intensity of subjective feelings would be associated with greater message effectiveness. Therefore, Study 2 tested whether participants exposed to the gain (loss) frame have more positive attitudes towards the advertising and its sponsor as well as greater intentions to sponsor and donate than do participants exposed to the non-loss (non-gain) frame (H3~H4). In addition, Study 2 tested how the effect of regulatory-focused message framing on ad effectiveness is mediated by the intensity of subjective feelings (H5~H6).

To test these hypotheses, Study 1 adopted a 2 (valence of outcome: positive vs. negative)  $\times$  2 (focus of outcome: gain-anchored vs. loss-anchored) between-subject randomly assigned factorial design. As the index for ad effectiveness, the researcher considered the following as dependent variables: attitudes toward the ad, attitudes toward the nonprofit organization, willingness to sponsor, and intention to donate. The intensity of subjective feelings was regarded as an outcome variable (H1~H2) as well as a mediator (H5~H6), providing a key link between regulatory-focused message framing and ad effectiveness.

		Outcome Focus		
		Gain-anchored		Loss-anchored
Overall Valence	Positive	<b>Gain</b>	>	<b>Non-Loss</b>
	Negative	<b>Non-Gain</b>	<	<b>Loss</b>

Table 4: Predictions on Asymmetry in Subjective Feelings of the Four Types of Regulatory-Focused Message Framing

## IV.2. METHODS

### IV.2.1. Stimuli Development

Study 1 created a mock ad campaign asking for donations to a disaster relief fund. Chosen as the context of the ad stimuli was the timely issue of the 2018 California wildfire. This wildfire, the deadliest and most destructive wildfire recorded in California according to National Interagency Fire Center (2018), caused more than \$3.5 billion (2018 USD) in damages and the largest amount of burned acreage (766,439 ha). At the time of Study 1, disaster relief for California wildfires was an imperative social cause.

The experimental ad stimuli were in the form of a half-page color print ad. It featured an image of the large burn area and a logo of a fictional nonprofit organization, given the name of California Wildfire Relief Fund. Appearing across the top of the ad was the headline “People affected by the California forest fire need your help.” All these features of the ad were kept the same across the four experimental conditions (see Study 1 Stimuli in Appendix 2). Great care was taken to create the four types of regulatory-focused messages that only differed in overall valence and outcome focus. All the messages, shown in Table 5, were approximately 20~25 words long.

		Outcome Focus	
		Gain-anchored (positive outcome focus)	Loss-anchored (negative outcome focus)
Overall Valence	Positive	<p><b><u>GAIN: PRESENCE OF POSITIVE OUTCOME</u></b></p> <p><i>“With generous donations from people like you, survivors will have access to <u>immediate financial assistance, emergency housing, and emotional care.</u>”</i></p>	<p><b><u>NON-LOSS: ABSENCE OF NEGATIVE OUTCOME</u></b></p> <p><i>“With generous donations from people like you, survivors will be able to <u>lessen the damage caused by financial loss, displacement, and emotional trauma.</u>”</i></p>
	Negative	<p><b><u>NON-GAIN: ABSENCE OF POSITIVE OUTCOME</u></b></p> <p><i>“Without generous donations from people like you, survivors will not have access to <u>immediate financial assistance, emergency housing, and emotional care.</u>”</i></p>	<p><b><u>LOSS: PRESENCE OF NEGATIVE OUTCOME</u></b></p> <p><i>“Without generous donations from people like you, survivors will <u>continue to suffer from financial loss, displacement, and emotional trauma.</u>”</i></p>

Table 5: Four Types of Regulatory-Focused Message Framing of Study 1

#### IV.2.2. Participants and Procedures

For Study 1, an online experiment was conducted with 260 general online consumer participants, recruited from Qualtrics. Participants received \$4.50 in return for their participation. Upon arrival in the experimental survey, participants were told that the purpose of the study was to find out how people responded to a social issue (i.e., disaster relief) and that they were going to see an advertisement for this issue and answer a few questions afterward. Subsequently, participants were randomly assigned to one of the four ad conditions and asked to review the ad for at least 60 seconds. After viewing the ad, participants filled out a questionnaire that included measures of subjective feelings, advertising effects, confounding variables, manipulation check, and simple

demographics. Each online survey lasted approximately 15~20 minutes. All collected data were analyzed with the SPSS 22.0 statistical package.

### **IV.2.3. Measure**

#### ***IV. 2.3.1. Subjective Feelings***

Based on Idson et al. (2000), participants were asked to rate how they felt on a scale from 0 (none of this feeling) to 4 (a great deal of this feeling). The feelings suggested were the following: relaxed (contented, peaceful, mellow, tranquil;  $M = 2.21$ ,  $SD = 1.65$ ,  $Cronbach \alpha = .90$ ), tense (irritated, angry, annoyed, aggravated;  $M = 1.61$ ,  $SD = 1.71$ ,  $Cronbach \alpha = .95$ ), discouraged (sad, dreary, dismal;  $M = 2.10$ ,  $SD = 1.62$ ,  $Cronbach \alpha = .84$ ), and happy (happy, elated, cheerful, joyful;  $M = 2.14$ ,  $SD = 1.74$ ,  $Cronbach \alpha = .94$ ). The sum of negatively valenced emotions (tense, discouraged) were subtracted from the sum of positively valenced emotions (relaxed, happy) such that a higher positive score meant a stronger intensity of pleasure and a higher negative score meant a stronger intensity of pain ( $M = .64$ ,  $SD = 5.18$ ).

#### ***IV. 2.3.2. Attitudes towards the Ad***

Participants were asked to rate the advertisement on a 7-point semantic differential scale that included eleven items anchored by “bad/ good,” “unattractive/attractive,” “unpleasant/pleasant,” “unconvincing/convincing,” “unbelievable/believable,” “unfavorable/favorable,” “irritating/not irritating,” “uninteresting/interesting,” “ineffective/effective,” “dislike very much/like very much,” and “uninspiring/inspiring” ( $M = 4.81$ ,  $SD = 1.50$ ,  $Cronbach \alpha = .95$ ). This measure was adapted from previous literature (Cesario et al., 2004; Jain, Lindsey, Agrawal, &

Maheswaran, 2007). The scores to these items were averaged to form an index for attitudes towards the ad.

#### ***IV. 2.3.3. Attitudes towards the Nonprofit Organization***

Participants' attitudes towards the nonprofit organization were measured by asking them to indicate their agreement with each of the following statements on a 7-point Likert scale (1 = strongly disagree and 7 = strongly agree): "The money given to the charitable organization goes for good causes," "Much of the money donated to the charitable organization is wasted (R)," "My image of the charitable organization is positive," "The charitable organization has been quite successful in helping the needy," and "The charitable organization performs a useful function for society" ( $M = 5.21$ ,  $SD = 1.14$ ,  $Cronbach \alpha = .87$ ). This measure was adopted from Baek and Reid (2013) and the scores to the five items were averaged to form an index for attitudes towards the nonprofit organization.

#### ***IV. 2.3.4. Willingness to Sponsor***

To measure participants' willingness to sponsor, four items were adopted from Dodds, Monroe, and Grewal (1991). Using a 7-point Likert scale (1 = strongly disagree and 7 = strongly agree), participants were asked to indicate their level of agreement with each of the following statements: "I intend to sponsor a child," "I will consider sponsoring a child in the future," "I would recommend sponsoring a child to my friends or relatives," and "I am likely to make a charitable donation in order to help a child in need" ( $M = 4.60$ ,  $SD = 1.39$ ,  $Cronbach \alpha = .91$ ). The scores to the four items were averaged to form an index for willingness to sponsor.

#### ***IV. 2.3.5. Intentions to Donate***

Following the procedure laid out by Winterich, Mittal, and Ross (2009), participants were asked to imagine they had \$100 at their disposal and then indicate the amount from this \$100 they were willing to donate to the nonprofit organization ( $M = 42.76$ ,  $SD = 34.02$ ). The dollar amounts for the imagined donations was used as an index for donation intentions.

### **IV.3. RESULTS AND DISCUSSIONS**

#### **IV.3.1. Sample Profile**

Of the 260 participants, 36.5% were male and 63.5% were female, with an age range of 21 to 61 ( $M = 41.2$ ,  $SD = 11.5$ ). There were no significant differences between male and female participants in any of the results reported below. Most participants were White (196, 75.4%), but the sample also included African Americans (25, 9.6%), Hispanics (17, 6.6%), Asians (11, 4.2%), American Indians or Alaskan Natives (4, 1.5%), Native Hawaiian or Other Pacific Islander (2, .8%), and Other (4, 1.5%). Approximately one-third of the participants (33.5%, 87) had earned a 2-year college degree/college credits, followed by 27.3% (71) having earned a 4-year college degree (BA/BS), 25.8% (67) a high school diploma/GED, 9.2% (24) a Master's degree, 3.1% (8) less than a high school education, .8% (2) a Doctoral degree, and .4% (1) a professional degree (MD/JD).

#### **IV.3.2. Manipulation Check**

To check the success of message manipulations, Study 1 followed the procedure of Zhao and Pechmann (2007). Participants were asked to answer “yes” or “no” to each of the following four questions: Did the advertisement show survivors gaining benefits/advantages from a donation (i.e., gains)? Did the advertisement show survivors

having to forgo benefits/advantages by no donation being made (i.e., non-gains)? Did the advertisement show damage/losses to survivors being abated/avoided as a result of a donation being made (i.e., non-losses)? Did the advertisement show survivors sustaining damage/losses as a result of no donation being made (i.e., losses)?

Results of logistic regressions revealed that the message manipulations were successful, such that the message's overall valence and outcome focus affected whether participants agreed that the message showed gains [ $\chi^2(1) = 49.97, p < .001$ ; *Nagelkerke*  $R^2 = 24.1$ ; 65% accuracy in classification], non-gains [ $\chi^2(1) = 34.18, p < .001$ ; *Nagelkerke*  $R^2 = 18.6$ ; 77% accuracy in classification], non-losses [ $\chi^2(1) = 25.09, p < .001$ ; *Nagelkerke*  $R^2 = 12.7$ ; 70% accuracy in classification], or losses [ $\chi^2(1) = 31.67, p < .001$ ; *Nagelkerke*  $R^2 = 16.0$ ; 74% accuracy in classification].

On average, the participants who read gain messages were 26.4 times more likely to agree that the advertisement showed survivors gaining benefits/advantages from a donation (i.e., gains) than those exposed to other message types. The participants who read non-gain messages were 6.3 times more likely to agree that the advertisement showed survivors forgoing benefits/advantages (i.e., non-gains) as opposed to those exposed to other types of message. The participants who read non-loss messages were 4.3 times more likely to agree that the advertisement showed damage/loss to survivors being abated/avoided as a result of a donation being made (i.e., non-losses) as opposed to those exposed to other types of message. The participants who read non-loss messages were 5.6 times more likely to agree that the advertisement showed damage/losses to survivors that would result from no donation being made (i.e., losses) as opposed to those exposed to other types of message.

### IV.3.3. Hypotheses Testing

To test Hypotheses 1 and 2, a 2 (valence of outcome: positive vs. negative) × 2 (focus of outcome: gain-anchored vs. loss-anchored) analysis of variance on participants' **subjective feelings** was conducted. As expected, result of this analysis revealed a significant main effect of overall valence [ $F(1, 256) = 921.92, p < .001, \eta^2 = .78$ ] as well as a significant main effect of outcome focus [ $F(1, 256) = 19.23, p < .001, \eta^2 = .07$ ], but the interaction of valence and focus of outcome was not statistically significant [ $F(1, 256) = .45, p > .05$ ]. Additionally, planned contrasts revealed more positive ratings in gain framing ( $M = 5.85, SD = 1.82$ ) than non-loss framing ( $M = 4.33, SD = 2.38$ ) [ $F(1, 256) = 13.08, p < .001, \eta^2 = .05$ ], and more negative ratings in loss framing ( $M = -4.58, SD = 2.41$ ) than non-gain framing ( $M = -3.47, SD = 2.92$ ) [ $F(1, 256) = 6.74, p < .05, \eta^2 = .03$ ]. Table 6 shows the mean ratings of subjective feelings by participants in each of the four message conditions. These findings were consistent with the predictions of this research; therefore, Hypotheses 1 and 2 were supported.

		Outcome Focus	
		Gain-anchored	Loss-anchored
Overall Valence	Positive	<b>Gain</b> 5.85	<b>Non-Loss</b> 4.33
	Negative	<b>Non-Gain</b> -3.47	<b>Loss</b> -4.58

Table 6: Main Rating of Subjective Feelings as a Function of Overall Valence and Outcome Focus in Message Framing (Study 1)

To test Hypotheses 3 and 4, a series of 2 (valence of outcome: positive vs. negative) × 2 (focus of outcome: gain-anchored vs. loss-anchored) analysis of variance on ad effectiveness were conducted. Results of analyses showed that there was no

significant interaction effect on participants' **attitudes towards the ad** [ $F(1, 256) = 3.29$ ,  $p = .075 > .05$ ,  $\eta^2 = .012$ ], **attitudes towards the nonprofit organization** [ $F(1, 256) = 3.75$ ,  $p = .054 > .05$ ,  $\eta^2 = .014$ ], **willingness to sponsor** [ $F(1, 256) = 3.75$ ,  $p = .054 > .05$ ,  $\eta^2 = .014$ ], or **intentions to donate** [ $F(1, 256) = 2.27$ ,  $p = .133 > .05$ ,  $\eta^2 = .009$ ].

Therefore, Hypotheses 3(a)(b)(c)(d) and 4 (a)(b)(c)(d) were not supported.

However, patterns of the interaction on all dependent variables were as expected (see Figure 6), and each  $p$ -value had a marginal trend towards significance. As the effects of the four types of regulatory-focused message framing on ad effectiveness were not significant, **the mediating role of subjective feelings** could no longer be tested.

Accordingly, Hypotheses 5 and 6 were not supported either.

On the whole, in the context of philanthropy advertising, Study 1 supported the predictions of regulatory focus theory that the pleasure of gains is stronger than the pleasure of non-losses (H1), and that the pain of losses is stronger than the pain of non-gains (H2). However, despite the marginally significant  $p$ -values, Study 1 failed to confirm the prediction that the four types of regulatory-focused message framing produce differences in ad effectiveness through change in subjective feelings among message recipients. In Study 2, all hypotheses were once again tested, this time using a different set of ad stimuli.

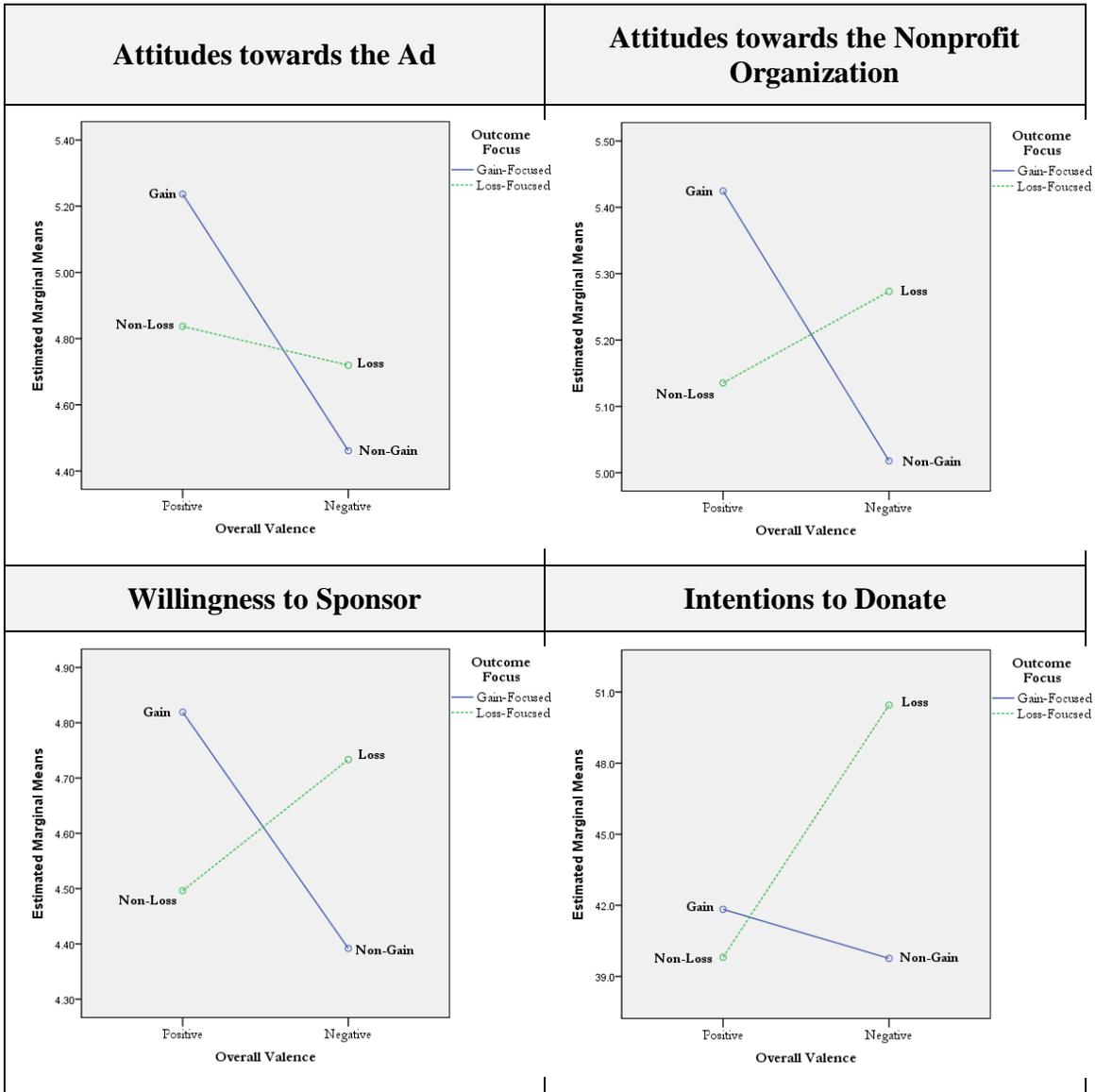


Figure 6: Interaction Effects of Overall Valence with Outcome Focus on Ad Effectiveness.

## Chapter V: Study 2

### V.1. RESEARCH DESIGN

Study 1 provided evidence that the four types of regulatory-focused message framing systematically affected individuals' subjective feelings through activating different intensity levels of pleasure and pain. However, Study 1 failed to confirm that the change in subjective feelings differentially influenced how individuals respond to the advertisement and its message recommendations. As an effort to validate the results of Study 1, Study 2 was conducted with the same research design but used a different set of ad stimuli.

The ad stimuli's social cause in Study 2 was child hunger. This is because, compared to a local cause that needs immediate help (e.g., disaster relief in California), child hunger is a national cause that is not limited to a particular geographical area and considered as a chronic, widespread problem requiring long-term support. Also, the causes represented by children's charities have been shown to be of high personal importance to most people, and more "saleable" or "emotive" than others (Hibbert, Smith, Davies, & Ireland, 2007). For these reasons, it was reasoned in this research that using the ad campaign about child hunger would be more desirable for activating intensive subjective feelings that might effectively carry over to ad effectiveness.

Using the identical research design of Study 1, it was also predicted in Study 2 that since the pleasure of gains is stronger than that of non-losses (H1), the gain (vs. non-loss) frame would produce greater ad effectiveness (H3), and as the pain of losses is stronger than that of non-gains (H2), the loss (vs. non-gain) frame would produce greater ad effectiveness (H4). Accordingly subjective feelings would mediate the effect of regulatory-focused message framing on ad effectiveness (H5~H6).

## **V.2. METHODS**

### **V.2.1. Stimuli Development**

In the context of child hunger, the ad stimulus was created, as with Study 1, in the form of a half-page color print ad. The four types of regulatory-focused messages were carefully developed in terms of overall valence and outcome focus. Each message was about 28~32 words in length and shown in Table 7. Aside from the manipulated verbal messages, all ad features, such as font type, color, layout, were the same. For example, each of the manipulated messages was accompanied by the same headline (i.e., “1 in 5 Children in America Faces Hunger.”) and the same image of five children with one child highlighted in a different color. A logo of the fictional nonprofit organization, “*Feed the Children*,” was also designed and placed in the advertisement (see Appendix 3).

### **V.2.2. Participants and Procedure**

A total of 208 participants were recruited from *Qualtrics* and paid \$4.50 for their participation. The entire procedure of Study 2 was identical to that of Study 1. Upon arrival in the experimental survey, participants were told that the purpose of the study was to find out how people responded to a social issue (i.e., child hunger) and that they were going to see an advertisement for this issue and answer a few questions afterward. Subsequently, participants were randomly assigned to one of the four ad conditions and asked to review the ad for at least 60 seconds. After viewing the ad, participants filled out a questionnaire that included measures of subjective feelings, advertising effects, confounding variables, manipulation check, and simple demographics. Each online survey lasted approximately 15~20 minutes. All collected data were analyzed with the SPSS 22.0 statistical package.

		Outcome Focus	
		Gain-anchored (positive outcome focus)	Loss-anchored (negative outcome focus)
Overall Valence	Positive	<p><b><u>GAIN: PRESENCE OF POSITIVE OUTCOME</u></b></p> <p>“With generous donations from people like you, children will have access to adequate food and nutrition, thus ensuring <u>healthy growth, a strong immune system, and sound neurological and cognitive development.</u>”</p>	<p><b><u>NON-LOSS: ABSENCE OF NEGATIVE OUTCOME</u></b></p> <p>“With generous donations from people like you, children will avoid poverty and starvation, thus averting the risks of <u>chronic disease, immune system dysfunction, and neurological and cognitive impairment.</u>”</p>
	Negative	<p><b><u>NON-GAIN: ABSENCE OF POSITIVE OUTCOME</u></b></p> <p>“Without generous donations from people like you, children will miss a chance to have adequate food and nutrition, thus inhibiting <u>healthy growth, a strong immune system, and sound neurological and cognitive development.</u>”</p>	<p><b><u>LOSS: PRESENCE OF NEGATIVE OUTCOME</u></b></p> <p>“Without generous donations from people like you, children will continue to suffer from poverty and starvation, thus, risking <u>chronic disease, immune system dysfunction, and neurological and cognitive impairment.</u>”</p>

Table 7: Four Types of Regulatory-Focused Message Framing of Study 2

### V.2.3. Measures

The measures used in this study were identical to those used in Study 1, i.e., subjective feelings<sup>1</sup> ( $M = .95$ ,  $SD = 5.41$ ), attitudes towards the advertising ( $M = 5.02$ ,  $SD = 1.35$ ,  $Cronbach \alpha = .95$ ), attitudes towards the nonprofit organization ( $M = 5.27$ ,  $SD =$

<sup>1</sup> Participants were asked to rate on a scale from 0 (none of this feeling) to 4 (a great deal of this feeling) how relaxed (contented, peaceful, mellow, tranquil;  $M = 2.24$ ,  $SD = 1.65$ ,  $Cronbach \alpha = .89$ ), tense (irritated, angry, annoyed, aggravated;  $M = 1.62$ ,  $SD = 1.71$ ,  $Cronbach \alpha = .94$ ), discouraged (sad, dreary, dismal;  $M = 1.93$ ,  $SD = 1.68$ ,  $Cronbach \alpha = .87$ ) and happy (happy, elated, cheerful, joyful;  $M = 2.26$ ,  $SD = 1.80$ ,  $Cronbach \alpha = .96$ ) they feel. By subtracting the sum of negatively valenced emotions (tense, discouraged) from the sum of positively valenced emotions (relaxed, happy), the index of subjective feelings was calculated. A higher positive score means a stronger pleasure and a higher negative score means a stronger pain ( $M = .95$ ,  $SD = 5.41$ ).

1.01, *Cronbach*  $\alpha = .81$ ), willingness to sponsor ( $M = 4.61$ ,  $SD = 1.35$ , *Cronbach*  $\alpha = .93$ ), and intentions to donate ( $M = 38.88$ ,  $SD = 29.95$ ).

### **V.3. RESULTS AND DISCUSSIONS**

#### **V.3.1. Sample Profile**

Participating in this study were a total of 208 participants; 50.5% of them were males and 49.5% females, with an age range from 21 to 61 ( $M = 42.2$ ,  $SD = 12.1$ ). The majority of participants (72.1%, 150) were White, but the sample also included African Americans (17, 8.2%), Hispanics (14, 6.8%), Asians (12, 5.8%), and Other (11, 5.3%). The modal response for education level was a 2-year college degree/college credits (91, 43.7%), followed by those having a 4-year college degree (49, 23.6%), a high school diploma/GED (41, 19.7%), a Master's degree (16, 7.7%), less than a high school education (5, 2.4%), a Doctoral degree (3, 1.4%), and a professional degree (MD/JD; 3, 1.4%).

#### **V.3.2. Manipulation Check**

Study 2 also applied the same manipulation check items used in Study 1. A series of logistic regressions were conducted and revealed successful manipulations on the four types of regulatory-focused message. For example, the message's overall valence and outcome focus affected whether participants agreed that the message showed gains [ $\chi^2(1) = 52.43$ ,  $p < .001$ ; *Nagelkerke*  $R^2 = 30.3$ ; 63% accuracy in classification], non-gains [ $\chi^2(1) = 34.54$ ,  $p < .001$ ; *Nagelkerke*  $R^2 = 21.6$ ; 77% accuracy in classification], non-losses [ $\chi^2(1) = 21.11$ ,  $p < .001$ ; *Nagelkerke*  $R^2 = 13.2$ ; 70% accuracy in classification], or losses [ $\chi^2(1) = 44.46$ ,  $p < .001$ ; *Nagelkerke*  $R^2 = 25.7$ ; 70% accuracy in classification].

On average, the participants who read gain messages were 54.1 times more likely than those exposed to another type of message to agree that the advertisement showed children gaining benefits/advantages from a donation (i.e., gains) being made. The participants who read non-gain messages were 7.5 times more likely than those exposed to another type of message to agree that the advertisement showed children forgoing/forfeiting benefits/advantages from a donation (i.e., non-gains) not being made. The participants who read non-loss messages were 4.6 times more likely than those exposed to another type of message to agree that the advertisement showed children avoiding or enduring less damage/loss as a result of a donation being made (i.e., non-losses). The participants who read non-loss messages were 11.8 times more likely than those exposed to another type of message to agree that the advertisement showed children enduring damage/loss from a donation not being made (i.e., losses).

### V.3.3. Hypotheses Testing

To test Hypotheses 1 and 2, the researcher conducted a 2 (valence of outcome: positive vs. negative)  $\times$  2 (focus of outcome: gain-anchored vs. loss-anchored) analysis of variance on participants' **subjective feelings**. As expected, Study 2 also found a significant main effect of overall valence [ $F(1, 204) = 621.81, p < .001, \eta^2 = .75$ ] and a significant main effect of outcome focus [ $F(1, 204) = 8.81, p < .01, \eta^2 = .04$ ]. In addition, the interaction of valence and focus of outcome was not statistically significant [ $F(1, 204) = .09, p > .05$ ]. More importantly, planned contrasts replicated the findings from Study 1, such that the pleasure derived from a gain framing ( $M = 6.06, SD = .37$ ) was significantly stronger than that derived from a non-loss framing ( $M = 5.06, SD = .37$ ) [ $F(1, 204) = 3.60, p < .05, \eta^2 = .02$ ]; the pain from a loss framing ( $M = -4.36, SD = .37$ ) was significantly stronger than that endured from a non-gain framing ( $M = -3.14, SD = .38$ )

[ $F(1, 204) = 5.28, p < .05, \eta^2 = .03$ ]. Therefore, Hypotheses 1 and 2 were supported in Study 2. Once again, this pattern of results as a whole is consistent with the predictions of regulatory focus theory. Table 8 provides the mean ratings of participants in each of the conditions.

		Outcome Focus	
		Gain-anchored	Loss-anchored
Overall Valence	Positive	<b>Gain</b> 6.06	<b>Non-Loss</b> 5.06
	Negative	<b>Non-Gain</b> -3.14	<b>Loss</b> -4.36

Table 8: Main Rating of Subjective Feelings as a Function of Overall Valence and Outcome Focus in Message Framing (Study 2)

Furthermore, to test the effect of regulatory-focused message framing on ad effectiveness (H3~H4), the researcher performed a series of 2 (valence of outcome: positive vs. negative)  $\times$  2 (focus of outcome: gain-anchored vs. loss-anchored) analyses of variance on all dependent variables. First, a significant interaction effect was found between the message's overall valence and outcome focus on participants' **attitudes towards the ad** [ $F(1, 204) = 17.17, p < .001, \eta^2 = .08$ ]. Consistent with the predictions of this research, planned contrasts between the gain and non-loss frames revealed that the message framed as a gain ( $M = 5.84, SD = 1.08$ ) produced more favorable attitudes towards the advertising than did the one framed as a non-loss ( $M = 5.07, SD = 1.46$ ). This mean difference was statistically significant [ $F(1, 204) = 10.44, p < .001, \eta^2 = .05$ ]. Planned contrasts between the loss and non-gain frames revealed that the message framed as a loss ( $M = 4.90, SD = 1.08$ ) resulted in more favorable attitudes towards the advertising than did the one framed as a non-gain ( $M = 4.26, SD = 1.27$ ). This mean

difference was also statistically significant [ $F(1, 204) = 6.93, p < .01, \eta^2 = .03$ ].

Therefore, Hypotheses 3(a) and 4(a) were supported (see Figure 7).

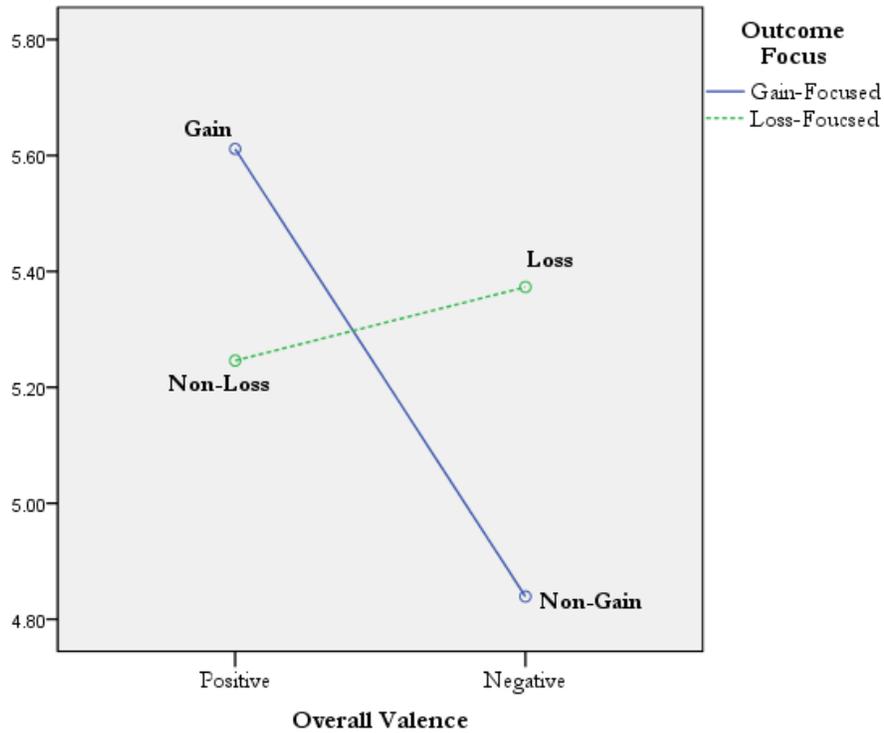


Figure 7: Interaction Effects of Overall Valence with Outcome Focus on Attitudes towards the Advertising

In terms of **attitudes towards the nonprofit organization**, results of analysis showed that there was, as expected, a significant interaction effect between the message's overall valence and outcome focus [ $F(1, 204) = 10.94, p < .001, \eta^2 = .05$ ]. Planned contrasts between the gain and non-loss frames revealed that the message framed as a gain ( $M = 5.61, SD = 1.02$ ) produced more favorable attitudes towards the nonprofit organization than did the one framed as a non-loss ( $M = 5.25, SD = 1.02$ ). The mean difference was marginally significant [ $F(1, 204) = 3.64, p = .058, \eta^2 = .02$ ]. Planned contrasts between the loss and non-gain frames revealed that the message framed as a

loss ( $M = 5.37, SD = .98$ ) resulted in more favorable attitudes towards the nonprofit organization than did the one framed as a non-gain ( $M = 4.84, SD = .89$ ), and this mean difference was statistically significant [ $F(1, 204) = 7.64, p < .01, \eta^2 = .04$ ]. Therefore, Hypotheses 3(b) and 4(b) were supported (see Figure 8).

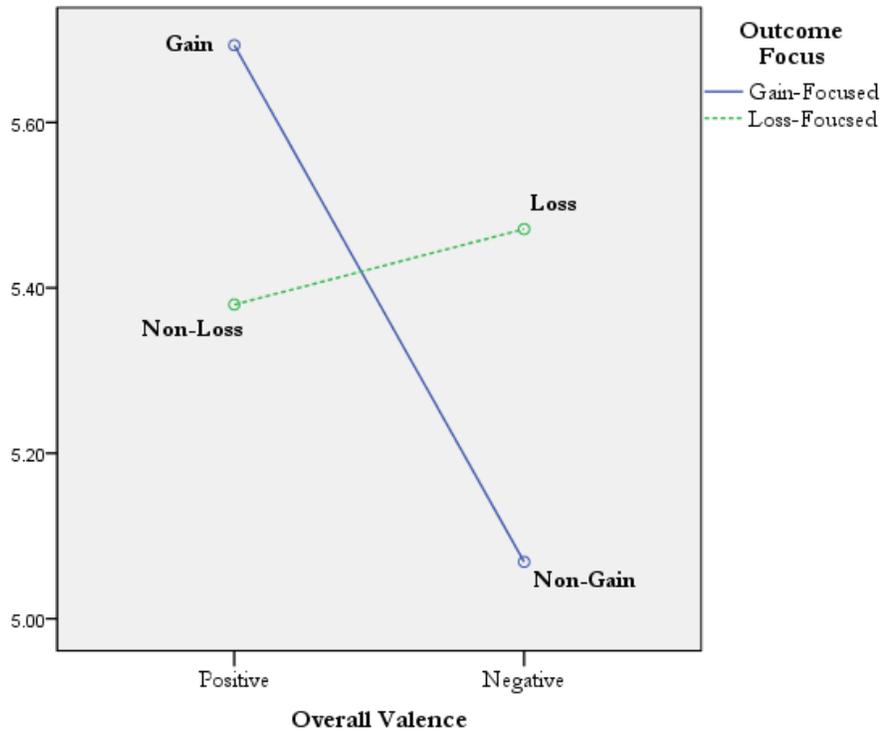


Figure 8: Interaction Effects of Overall Valence with Outcome Focus on Attitudes towards the Nonprofit Organization

In terms of **willingness to sponsor**, results of analysis showed that there was, as expected, a significant interaction effect between the message's overall valence and outcome focus [ $F(1, 204) = 5.31, p < .05, \eta^2 = .03$ ]. Planned contrasts between the gain and non-loss frames revealed that the message framed as a gain ( $M = 4.93, SD = 1.30$ ) produced greater willingness to sponsor the social cause described in the ad than did the

one framed as a non-loss ( $M = 4.61$ ,  $SD = 1.31$ ). However, this mean difference was not statistically significant [ $F(1, 204) = 1.51$ ,  $p > .05$ ,  $\eta^2 = .01$ ]. Planned contrasts between the loss and non-gain frames revealed that the message framed as a loss ( $M = 4.71$ ,  $SD = 1.33$ ) resulted in greater willingness to sponsor the social cause described in the ad than did the one framed as a non-gain ( $M = 4.18$ ,  $SD = 1.37$ ). This mean difference was statistically significant [ $F(1, 204) = 4.10$ ,  $p < .05$ ,  $\eta^2 = .02$ ]. Therefore, Hypothesis 3(c) was not supported, but 4(c) was (see Figure 9).

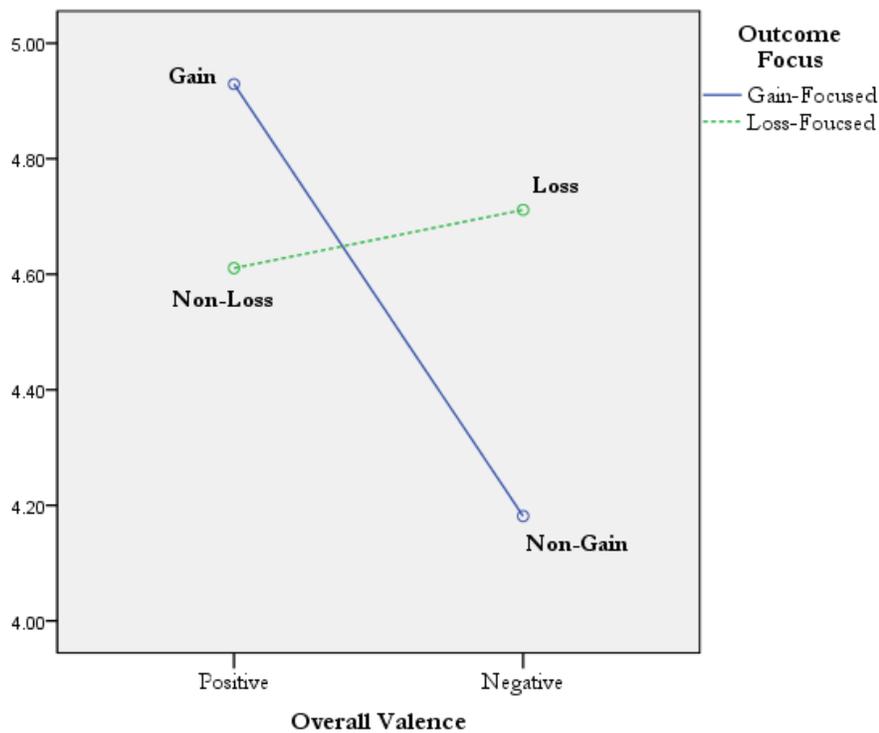


Figure 9: Interaction Effects of Overall Valence with Outcome Focus on Willingness to Sponsor

In terms of **intention to donate**, results of analysis showed that there was, as expected, a significant interaction effect between the message's overall valence and

outcome focus [ $F(1, 204) = 5.51, p < .05, \eta^2 = .03$ ]. Planned contrasts between the gain and non-loss frames revealed that the message framed as a gain ( $M = 47.76, SD = 31.47$ ) produced more favorable donation intentions than did the one framed as a non-loss ( $M = 38.81, SD = 27.89$ ), but this mean difference was not statistically significant [ $F(1, 204) = 2.43, p > .05, \eta^2 = .01$ ]. Planned contrasts between the loss and non-gain frames revealed that the message framed as a loss ( $M = 39.40, SD = 33.71$ ) resulted in stronger donation intentions than did the one framed as a non-gain ( $M = 29.20, SD = 23.48$ ). While this mean difference was not statistically significant, it showed a strong trend towards significance [ $F(1, 204) = 3.10, p = .08 > .05, \eta^2 = .02$ ]. Nevertheless, Hypotheses 3(d) and 4(d) were not supported (see Figure 10).

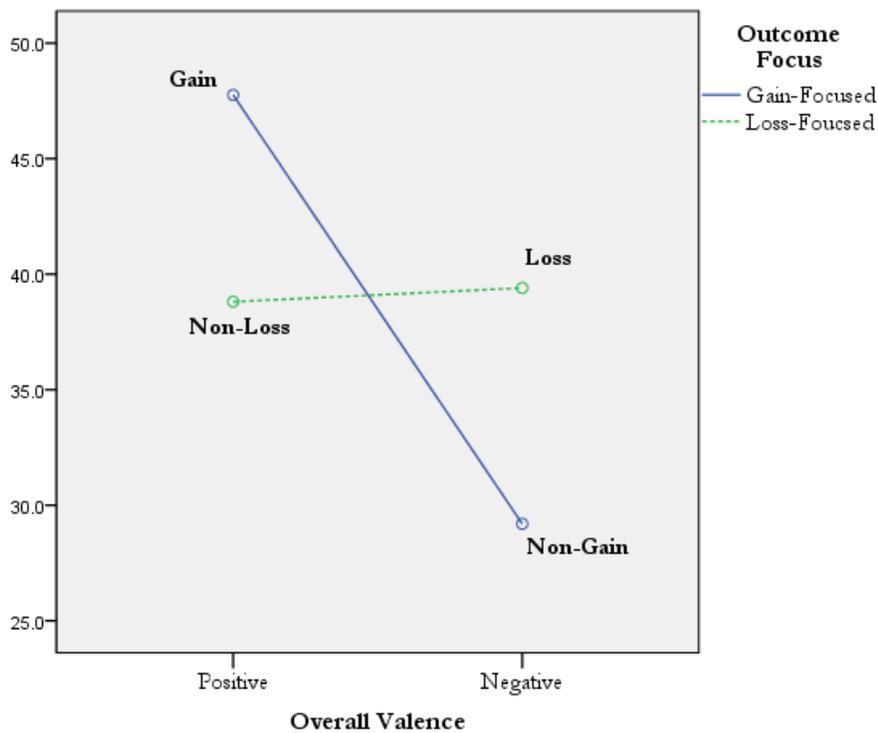


Figure 10: Interaction Effects of Overall Valence with Outcome Focus on Intentions to Donate

More importantly, this research proposed that the four types of regulatory-focused message framing would have indirect influences on ad effectiveness by affecting intensity levels of subjective feelings among participants. To test the mediating role of subjective feelings (H5~H6), the researcher used the Hayes' PROCESS macro to conduct a series of simple mediation analyses across all dependent variables. Specifically, Study 2 used Model 4 in the PROCESS macro that calculates the main effect of the IV (regulatory-focused message framing) both on the mediator (subjective feelings) and the DV (attitude towards the ad and its sponsoring nonprofit organization, willingness to sponsor, and intention to donate), and the main effect of the mediator on the DV together in one model. This process gives the average estimate for indirect effect of subjective feelings from the bootstrap samples, which provides a link between regulatory-focused message framing and ad effectiveness.

For **attitudes towards the nonprofit organization**, results of bootstrap analyses with 5,000 samples indicated that there was a significant indirect effect of the gain versus non-loss message framing (0 = non-loss, 1 = gain) upon participants' attitudes towards the nonprofit organization through the change in positive subjective feelings [AB indirect effect path = .107; 95% CI: .012 to .271], as the 95% confidence limits did not include zero. In other words, the gain framing (vs. non-loss) yielded stronger pleasure among participants. Participants experiencing more intense positive feelings generated more positive attitudes towards the nonprofit organization. Therefore, Hypothesis 5(b) was supported.

Results of bootstrap analyses with 5,000 samples also revealed that participants' attitudes towards the nonprofit organization was indirectly affected by the loss versus non-gain message framing (0 = non-gain, 1 = loss); this was a result of the participants' change in negative subjective feelings [AB indirect effect path = .089; 95% CI: .005 to

.275]. Since the 95% confidence limits did not include zero, the indirect effect test was statistically significant. In other words, the loss framing (vs. non-gain) induced greater pain among participants. The experience of more intense negative feelings produced in turn more positive attitudes towards the nonprofit organization. Therefore, Hypothesis 6(b) was supported. Figure 11 shows path (regression) coefficients in each of the mediation models.

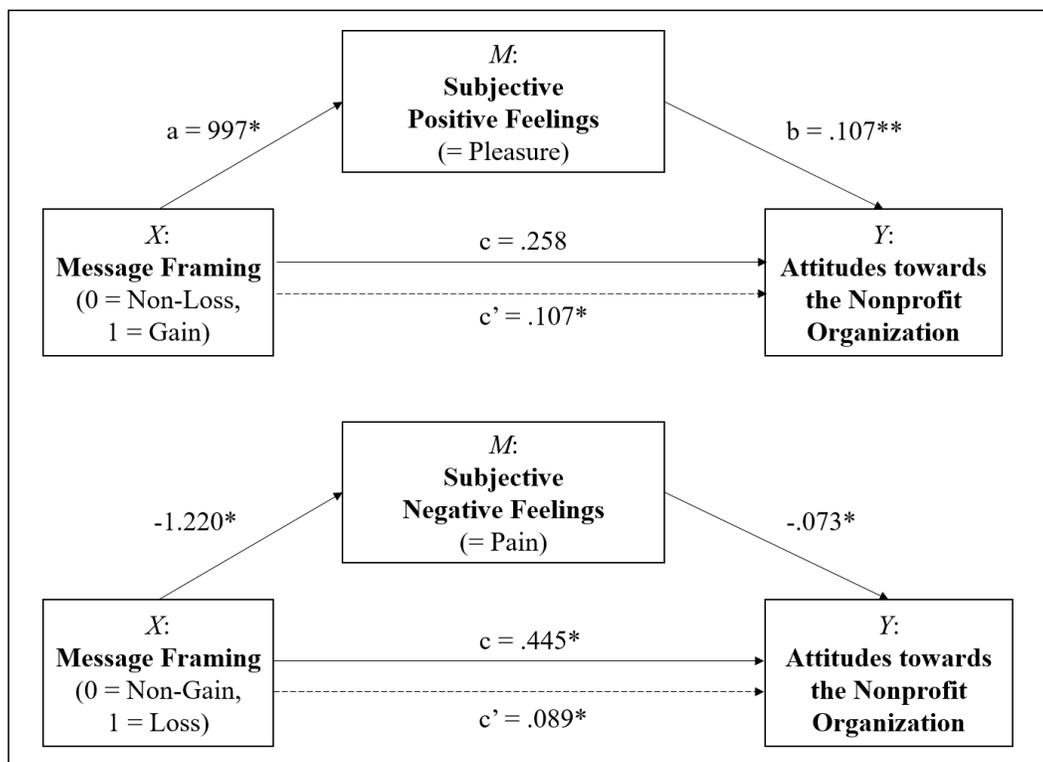


Figure 11: Bootstrapping Analyses for Mediation in Study 2: Mediating Role of Subjective Feelings on the Relationship between Message Framing and Attitudes towards the Nonprofit Organization

In terms of **attitudes towards the ad** and **willingness to sponsor**, results of bootstrap analyses with 5,000 samples indicated that there were significant indirect

effects of the gain versus non-loss message framing (0 = non-loss, 1 = gain) through a change in positive subjective feelings. However, no significant indirect effects were found for the loss versus non-gain message framing (0 = non-gain, 1 = loss) through a change in negative subjective feelings. Therefore, Hypotheses 5(a)(c) were supported, but 6(a)(c) were not.

In addition, results of bootstrap analyses with 5,000 samples failed to confirm significant indirect effects of message framing on **intentions to donate**, either through the change in positive or negative subjective feelings. In this respect, Hypotheses 5(d) and 6(d) were not supported. The bootstrap tests of the indirect effect on attitudes towards the ad, willingness to sponsor, and intentions to donate are found in the Table 9, where *Effect* gives the average estimate for indirect effect from the bootstrap samples, *BootSE* gives the standard error estimate, and *BootLLCI* and *BootULCI* are 95% confidence limits. If the 95% confidence limits include zero, the indirect effect test is not significant.

To sum up, Study 2 supported the proposed conceptualization of regulatory focus theory. First, its results replicated the patterns revealed in Study 1. In other words, the gain frame yielded stronger pleasure than did the non-loss frame, and the loss frame induced stronger pain than did the non-gain frame. Second, its results revealed that stronger pleasure (pain) induced from gain versus non-loss framing (loss vs. non-gain framing) resulted in greater ad effectiveness. Therefore, Study 2 provided evidence in support of the mediating role of subjective feelings, which provides a key link between regulatory-focused message framing and ad effectiveness. Study 3 presents an examination of the moderating role of individuals' momentary regulatory foci, so as to identify the boundary condition of regulatory-focused message framing.

		Other Dependent Variables					
		Attitudes towards the Ad		Willingness to Sponsor		Intentions to Donate	
		95% <i>LLCI</i> / <i>ULCI</i>	Effect ( <i>SE</i> )	95% <i>LLCI</i> / <i>ULCI</i>	Effect ( <i>SE</i> )	95% <i>LLCI</i> / <i>ULCI</i>	Effect ( <i>SE</i> )
<b>Message Framing</b>	Gain vs. Non-Loss (0 = non-loss, 1 = gain)	.017/ .529	.227* (.130)	.009/ .329	.125* (.079)	-.108/ 5.550	1.670 (1.381)
	Loss vs. Non-Gain (0 = non-gain, 1 = loss)	-.056/ .201	.034 (.060)	-.084/ .213	.029 (.070)	-1.547/ 3.677	.484 (1.237)

Table 9: Indirect Effects of Message Framing on Other Dependent Variables via Subjective Feelings (Mediator)

## Chapter VI: Study 3

### VI.1. RESEARCH DESIGN

The previous two studies showed that the pleasure of gain framing is stronger than that of non-loss framing and the pain of loss framing is stronger than that of non-gain framing. In addition, it was revealed that the asymmetry in subjective feelings mediates the effects on ad effectiveness of the four types of regulatory-focused message framing. In addition to those findings, Study 3 examines whether individuals' momentary regulatory focus moderates the effects of the four types of regulatory-focused message framing on individuals' global and relatively enduring evaluations of helping others.

Study 3 predicts that the differences in evaluations between the gain and non-loss frames would be significant only for individuals in a promotion focus and that this asymmetry would vanish for those in a prevention focus (H7). In contrast, Study 3 predicts that the differences in evaluations between the loss and non-gain frames will be significant only for individuals in a prevention focus and for those in a promotion focus this asymmetry will vanish (H8).

To test this boundary condition, Study 3 uses a 2 (valence of outcome: positive vs. negative)  $\times$  2 (focus of outcome: gain-anchored vs. loss-anchored)  $\times$  2 (individual's momentary regulatory focus: promotion-primed vs. prevention-primed) between-subject randomly assigned factorial design. Study 3 employs the identical ad stimuli used in Study 2 (i.e., child hunger), but as an index for persuasion uses a different dependent variable—global and relatively enduring evaluations towards helping others.

## **VI.2. METHODS**

### **VI.2.1. Stimuli Development**

Study 3 used the same ad stimuli as that used in Study 2. Indeed the social cause of child hunger was found to be effective at inducing intense subjective feelings among participants. Such feelings were effective in Study 2 at influencing participants' responses to the advertisement and its message recommendations (see Appendix 3).

### **VI.2.2. Participants and Procedure**

For Study 3, a total of 265 participants were recruited from *Amazon Mechanical Turk*, an online participant pool website. The incentive for participation was \$0.50. Otherwise, the method was virtually identical to those of Studies 1 and 2. Thus, only the differences are highlighted here. Instead of measuring individuals' chronic regulatory focus using a validated scale (e.g., Lockwood, et. al., 2002), Study 3 employed a priming technique, as suggested by Zhao and Pechmann (2007), to manipulate individuals' momentary regulatory focus.

At the beginning of the online experiment, participants spent approximately five minutes writing an essay. To prime a promotion focus, participants were asked to think about and write down their past and current hopes, aspirations, and dreams. To prime a prevention focus, they were asked to think about and write down their past and current duties, obligations, and responsibilities.

Subsequently, participants were randomly assigned to one of the four ad conditions and asked to review the ad for at least 60 seconds. After viewing the ad, participants were asked to complete the measure of evaluations towards helping others. Lastly, participants provided standard demographic information and were thanked for

their participation. Each online survey lasted approximately 15~20 minutes. All collected data were analyzed with the SPSS 22.0 statistical package.

### **VI.2.3. Measure**

To measure participants' global and relatively enduring evaluations with regard to helping or assisting other people, the researcher adopted a measure from Webb, Green, and Brashear (2000). Participants were asked to indicate their agreement on a 7-point Likert scale (1 = strongly disagree and 7 = strongly agree) with each of the following statements: "People should be willing to help others who are less fortunate," "Helping troubled people with their problems is very important to me," "People should be more charitable towards others in society," and "People in need should receive support from others" ( $M = 5.59$ ,  $SD = 1.04$ ,  $Cronbach \alpha = .87$ ). The scores to the four items were averaged to form an index of attitudes towards helping others.

## **VI.3. RESULTS AND DISCUSSIONS**

### **VI.3.1. Sample Profile**

A total of 265 participants participated. Of these, 44.5% were male and 55.5% female, with an age range of 19 to 74 ( $M = 39.2$ ,  $SD = 12.5$ ). The majority of participants were White (208, 78.5%), but there were also Asians (20, 7.5%), African Americans (18, 6.8%), Hispanics (13, 4.9%), Other (3, 1.1%), and Native Hawaiian or Other Pacific Islander (2, .8%). Participants were highly educated, with most having earned a 4-year college degree (BA/BS; 111, 41.9%), or a 2-year college degree/college credits (71, 26.8%), followed by those with a Master's degree (46, 17.4%), a high school diploma/GED (21, 7.9%), a Doctoral degree (7, 2.6%), a professional degree (MD/JD; 6, 2.3%), and less than high school education (3, 1.1%).

### VI.3.2. Hypotheses Testing

To test Hypotheses 7 and 8, a 2 (valence of outcome: positive vs. negative)  $\times$  2 (focus of outcome: gain-anchored vs. loss-anchored)  $\times$  2 (individual's momentary regulatory focus: promotion-primed vs. prevention-primed) analysis of variance was performed on evaluations of helping others. Study 3 found a significant three-way interaction among the message's overall valence and outcome focus, as well as the message recipients' manipulated regulatory focus on their evaluations towards helping others [ $F(2, 257) = 12.83, p < .001, \eta^2 = .048$ ].

Study 3 followed up with simple two-way interactions at all levels of the third independent variable (i.e., momentary regulatory focus). This was done to understand how the simple two-way interactions are different for “promotion-primed” and “prevention-primed” people. Results indicated that there was a statistically significant simple two-way interaction on evaluations between the message's overall valence and outcome focus both for promotion-primed [ $F(1, 257) = 4.31, p < .05, \eta^2 = .016$ ] and prevention-primed people [ $F(1, 257) = 9.37, p < .01, \eta^2 = .035$ ].

To obtain more specification, Study 3 carried out simple simple main effects for both types of regulatory-primed people. Among promotion-primed participants, those who saw the gain framing had more positive evaluations towards helping others ( $M = 5.74, SD = .84$ ) than those exposed to the non-gain framing ( $M = 5.08, SD = 1.06$ ), and this mean difference was statistically significance [ $F(1, 257) = 6.58, p < .05$ ]. However, for those with a promotion focus, there was no significant evaluations difference between the non-loss ( $M = 5.40, SD = .99$ ) and loss framing [ $(M = 5.57, SD = 1.02); F(1, 257) = .31, p > .05$ ] (See Figure 12).

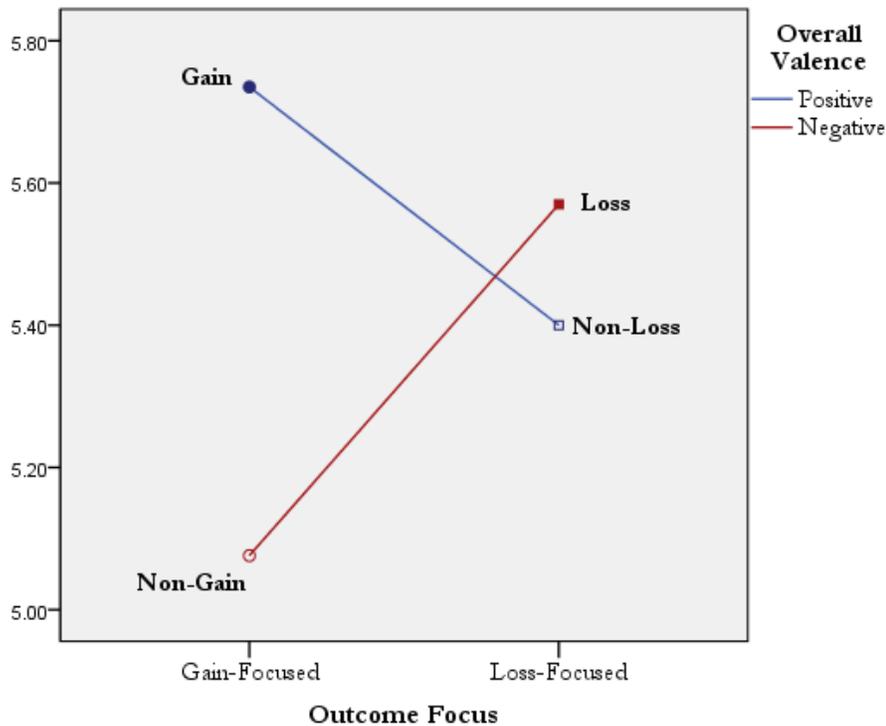


Figure 12: Interaction Effects of Overall Valence with Outcome Focus on Evaluations towards Helping Behavior for Promotion-Primed Individuals

In contrast, among prevention-primed participants, those who saw the non-loss framing had more favorable evaluations towards helping others ( $M = 5.92, SD = .85$ ) than those exposed to the loss framing ( $M = 5.21, SD = 1.35$ ), and this mean difference was statistically significant [ $F(1, 257) = 6.24, p < .05$ ]. However, for those with a prevention focus, there was no significant evaluation differences between the gain ( $M = 5.54, SD = 1.00$ ) and non-gain framing [ $(M = 5.91, SD = 1.07); F(1, 257) = 3.14, p > .05$ ] (see Figure 13).

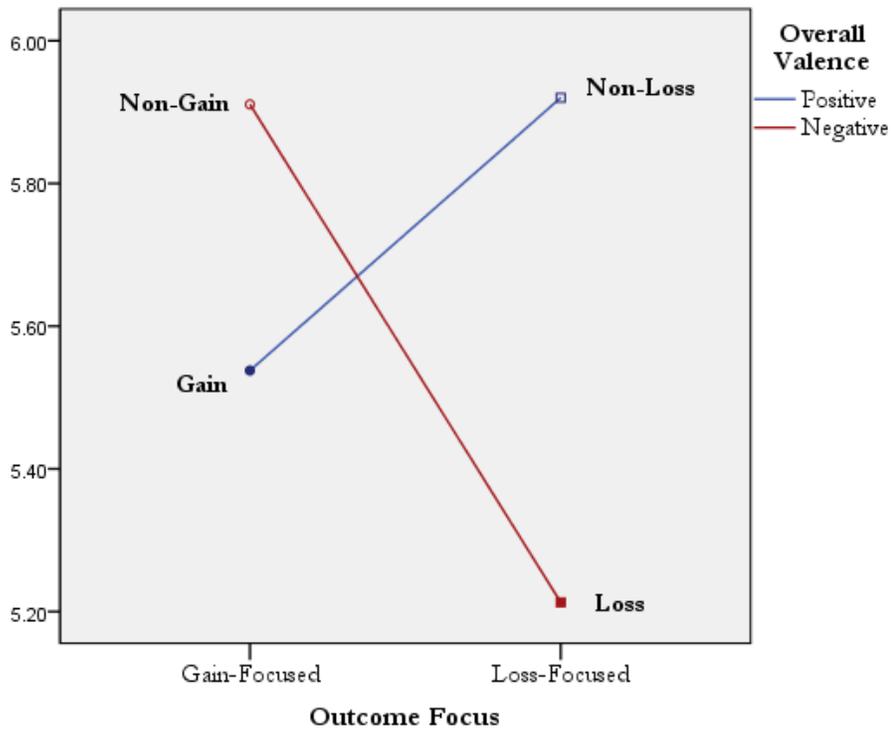


Figure 13: Interaction Effects of Overall Valence and Outcome Focus on Evaluations towards Helping Behavior for Prevention-Primed Individuals

## **Chapter VII: General Discussion**

### **VII.1. SUMMARY**

Under the regulatory focus framework (Higgins, 1997, 1998), this dissertation research has examined the persuasive effects of the four types of outcomes framed in philanthropy advertising. Through a comprehensive review of the literature, this research discussed 1) how regulatory-focused messages can be classified into the four frames—gains, non-gains, losses, and non-losses—which varies in overall valence and outcome focus, as well as 2) how previous studies have differentially operationalized their promotion and prevention frames on the basis of the refined message distinction above.

Based on the literature review, this research subsequently conducted three empirical studies to examine 3) how the four types of message framing systematically affect the intensity of subjective feelings among message recipients (H1~H2), 4) the moderating role of subjective feelings to understand how the four types of message framing produce differences in ad effectiveness (H3~H4) through change in the intensity levels of pleasure and pain among the message recipients (H5~H6), and 5) the mediating role of individuals' momentary regulatory focus to understand how the persuasive effects of the advertisement are contingent upon its message frame (i.e., overall valence and outcome focus) and the message recipient's motivational state (i.e., momentary regulatory focus) functioning synergistically (H7~H8).

Results of this research found that participants felt greater pleasure from the ad being framed as gains than as non-losses, whereas participants felt greater pain about the ad being framed as losses than non-gains (Studies 1 and 2). This research also supported that among participants subjective feelings play a mediating role, such that the gain (loss) frame loomed larger than did the non-loss (non-gain) frame, and experiencing more

intense subjective feelings in turn led to more positive effects on participants' attitudes towards the advertising and attitudes towards the nonprofit organization (Study 2).

This study also identified a significant moderating role of individuals' momentary regulatory focus, but revealed a new pattern of three-way interaction on their evaluations of helping others, which departed from the study's prediction (Study 3). For example, the gain versus non-gain asymmetry in evaluations towards helping behavior was significant only for participants in a promotion focus, with the message framed as gains (vs. non-losses) being more positive; for those in a prevention focus, this asymmetry vanished. In contrast, the loss versus non-loss asymmetry in evaluations of helping behavior was significant only for participants in a prevention focus, with the message framed as losses (vs. non-gains) being more positive; this asymmetry vanished for those in a promotion focus.

## **VII.2. DISCUSSION**

### **VII.2.1. Interaction Effects of Overall Valence with Outcome Focus on Subjective Feelings (H1 and H2)**

Across Studies 1 and 2, this research found that the pleasure of the gain frame was more intense than that of the non-loss frame, whereas the pain of the loss frame was more intense than that of the non-gain frame. These results replicated the findings of previous literature that examined people's reactions not only to gains (the presence of a positive outcome) and losses (the presence of a negative outcome), but also to non-gains (the absence of a positive outcome) and non-losses (the absence of a negative outcome; Bechkoff et al., 2009; Brendl et al., 1995; Idson et al., 2000; Liberman et al., 2005).

For example, Idson et al. (2000) supported the asymmetry in perceptions when participants reported both how they would feel if these outcomes were to happen (Studies

1 and 2) and how they actually felt when they happened (Study 3). Liberman et al. (2005) also found the same patterns in the context of pricing (Studies 1 and 2) and negotiations (Study 3), such that losses were perceived as more intensely negative than non-gains, and gains were perceived as more positive than non-losses.

The findings of this research align with the account of regulatory focus theory, according to which because promotion success (gain) is success in achieving a maximal goal (a standard one hopes to achieve), it should be experienced more intensely than prevention success (non-loss), which is success in achieving a minimal goal (a standard one must achieve); because prevention failure (loss) is failure to achieve a minimal goal, it should be experienced more intensely than promotion failure (non-gain), which is failure to achieve a maximal goal (Idson et al., 2000; Liberman et al., 2005).

The findings of this research also supported the notions of “feature positive” (Hearst, 1984) and “mental addition” effects (Dunning & Parpal, 1989). Accordingly, present features and events simulated by mental addition (gains and losses) are experienced more intensely than absent features and events simulated by mental subtraction (non-gains and non-losses).

Taken together, the results of this research confirm that the asymmetry in the perception of gains, non-gains, losses, and non-losses were effectively induced by specifying different outcomes as message frames. The message recipients experienced greater pleasure when exposed to the ad framed as gains rather than non-losses. They experienced stronger pains when exposed to the ad framed as a loss rather than a non-gain.

### **VII.2.2. Interaction Effects of Overall Valence with Outcome Focus on Ad Effectiveness (H3 and H4)**

The findings of Study 2 also identified that the four types of regulatory-focused message framing produced differences in ad effectiveness. As expected, participants exposed to the ad framed as gains produced more positive attitudes towards the advertising and its sponsoring nonprofit organization than did those exposed to the ad framed as non-losses; and participants exposed to the ad framed as losses exhibited more positive attitudes towards the advertising and its sponsoring nonprofit organization than did those exposed to the ad framed as non-gains.

These results are congruent with previous message-framing research on comparing the persuasive effects of the gain, non-gain, loss, and non-loss frames. Dijkstra et al. (2011) and Yi and Baumgartner (2009) found that, when it came to increasing individuals' fruit and vegetable consumption, the gain frame was more persuasive than the non-loss frame, and the loss frame was more persuasive than the non-gain frame. Bechkoff et al. (2009) demonstrated that omission neglect also occurs in framing and persuasion, according to which non-loss and non-gain effects were weaker than loss/gain effects on judgments of frame imaginability, frame believability, and attributions for gas price fluctuations.

In addition to the attitudinal level of dependent variables (attitudes towards the ad and nonprofit organization), Study 2 also found a significant two-way interaction on the behavioral level of dependent variables—willingness to sponsor and intentions to donate. However, subsequent planned contrasts revealed that these interaction effects were mainly driven by the difference between the loss and non-gain frames, which partially supported the proposed interaction on intentions to sponsor and donate.

In this research, it appears that participants' positive attitudes towards the ad and its sponsoring nonprofit organization did not lead to increased intentions for sponsorship and donations. Suppose that performing an act would entail long-term benefits for the collective. If the short-term aversive consequences of doing so keep individuals from acting, then, according to Das, Kerkhof, and Kuiper (2008), individuals are faced with a social dilemma referred to as "a social fence." Since donating to or sponsoring a charity has characteristics similar to those of a social fence, the short-term rational choice is to do nothing—keeping their money for themselves rather than give to the charity (Das et al., 2008; Masnovi, 2013). Given that, participants' favorable attitudes towards the ad and its sponsor are not so easily transferred into their final behavioral level of intentions.

### **VII.2.3. Mediating Role of Subjective Feelings on the Effects of Message framing on Ad Effectiveness (H5 and H6)**

More important findings of Study 2 is that subjective feelings mediated the four types of message framing effects on ad effectiveness. In other words, the gain (vs. non-loss) frame produced greater pleasure among participants. The experience of stronger positive feelings led in turn to more favorable attitudes towards the nonprofit organization. The loss (vs. non-gain) frame, in contrast, induced greater pain among participants. The experience of stronger negative feelings led in turn to more strongly reinforced attitudes towards the nonprofit organization. These findings provide evidence of the specific mechanism underlying the persuasive effects of the four types of regulatory-focused message framing through change in subjective feelings.

Studies have already attempted to understand whether the four types of message framing—gain, non-gain, loss, and non-loss—produce different persuasion effects (Bechkoff et al., 2009; Dijkstra et al., 2011; Yi & Baumgartner, 2009). Yet this research

first tried to show how the four types of regulatory-focused message framing systematically induce the different levels of pleasure and pain. It also tried to show how this asymmetry in subjective feelings in turn affects individuals' responses to the advertisement and its message recommendations.

In addition, it is important to note that the carry-over effects of message framing on ad effectiveness through change in subjective feelings were significant only in Study 2 and not in Study 1. This might be due to the different types of social cause used for the studies. According to the literature, individuals construe different levels of mental abstraction of the same event depending on the perceived psychological distance between themselves and the event, which subsequently affects their evaluations of the event (Liberman, Sagristano, & Trope, 2002; Liberman & Trope, 1998; Trope & Liberman, 2003). In line with this notion, several studies have demonstrated how geographical proximity to the social cause positively influences consumers' evaluations of cause-related marketing campaigns (Grau & Folse, 2007; La Ferle, Kuber, & Edwards, 2013). In this respect, in Study 1, the sample recruited from all over the country might perceive the local cause (i.e., disaster relief in California) as important only for people in a particular geographical area, so they might not be interested in or responsive to the ad campaign.

In addition, the disaster relief for California was a matter of great urgency, calling for immediate helping and giving actions from the audience. During that disaster, people may have observed how many donors were helping provide relief and recovery support for individuals, families, and communities devastated by the wildfires. Since Study 1 was conducted after the lapse of time when the disaster relief efforts had been already made nationwide, many participants of Study 1 might think that it is too late for them to make any donations.

Compared to this disaster relief, Study 2's cause of child hunger is a chronic and widespread problem that is just not confined to a certain area of the United States. It calls for a long-term solution rather than any initial and immediate help. For these reasons, child hunger seems to be a rather general social cause free of any time pressure and that appeals to most of the people in the United States. Therefore, this researcher reasoned that regulatory-focused message framing might effectively bring the expected effects on ad effectiveness through change in subjective feelings when using the social cause for child hunger in the United States, rather than using the one for disaster relief in California.

#### **VII.2.4. Moderating Role of Individuals' Regulatory Focus on the Effects of Message framing on Evaluations towards Helping Behavior (H7 and H8)**

According to the account of regulatory fit, a good number of studies have demonstrated that the effects of regulatory-focused messages depend on their congruence with the individual's chronic or situational motivational orientation (Cesario et al., 2004; Förster et al., 1998; Florack & Scarabis, 2006; Higgins, 2000; Higgins et al., 2003; Spiegel et al., 2004). However, those studies examined only the regulatory-focused messages without considering any possible frame types of gains, non-gains, losses, and non-losses. Based on this research gap, Study 3 examined the moderating role of individuals' momentary regulatory focus to understand the regulatory fit effects on persuasion with the more refined message classification.

The results of Study 3 showed a significant three-way interaction effect on individuals' global and relatively enduring evaluations toward helping others. However, this results revealed different patterns of the relationship among the message's overall valence and outcome focus, as well as the message recipients' momentary regulatory

focus. For example, participants primed to have a promotion focus showed an increased sensitivity only to the difference between the gain and non-gain frames, while reporting greater preference to the gain frame over the non-gain frame. In contrast, participants primed to have a prevention focus exhibited an increased sensitivity only to the difference between the loss and non-loss frames, while rating the non-loss frame more favorably than the loss frame.

These results differ from the predictions of this research based on the “match with valence” account between message framing and individuals’ regulator focus (Sacchi & Stanca, 2014; Zhao & Pechmann, 2007). According to this notion, the gain versus non-loss asymmetry should be stronger for promotion-focused individuals only, with the gain (vs. non-loss) frame being more effective at persuasion; conversely, the loss versus non-gain asymmetry should be stronger for prevention-focused individuals only, with the loss (vs. non-gain) being more effective at persuasion

However, the findings of this research supported the notion of a “match with outcome focus.” In other words, the momentary promotion focus increases individuals’ sensitivity to the gain-anchored (i.e., gains and non-gains) instead of the positively valenced outcomes (i.e., gains and non-losses). That is, they see themselves as striving towards the presence of positive outcomes (i.e., gain), while attempting to avoid the absence of positive outcomes (i.e., unrealized opportunities, or non-gains). In contrast, momentary prevention focus increases individuals’ sensitivity to the loss-anchored (i.e., losses and non-losses) instead of negatively valenced outcomes (i.e., losses and non-gains). That is, they see themselves as striving for the absence of negative outcomes (i.e., safety from threats, or non-losses) while attempting to avoid the presence of negative outcomes (i.e., losses).

## **VII.3. IMPLICATIONS**

### **VII.3.1. Theoretical Implications**

This research found that in the context of advertising, the ad framed as gains loomed larger than the ad framed as non-losses, whereas the ad framed as losses loomed larger than the one framed as non-gains. Subsequently, the gain- (loss-) framing primacy when the outcome was positive (negative) resulted in more positive attitudes towards the advertisement and its sponsoring nonprofit organization. In addition, this research revealed that the message's frame (overall valence and outcome focus) and the message recipients' motivational state (momentary regulatory focus) worked synergistically by strengthening the gain over non-gain frame only for promotion-primed individuals on the one hand and on the other the non-loss over loss frame only for prevention-primed individuals.

Based on these findings, this research extends previous studies in four ways. First, by suggesting the more refined message distinction, we have a better understanding of the two dimensions of regulatory-focused message framing, which leads to the four different types of message frames. Not recognizing the distinctions among the four outcomes leads to unwarranted comparisons that may create unnecessary confusion. Therefore, this research will contribute to theoretically comparing and resolving the mixed previous findings resulting from difference in message operationalization, as well as guiding future message framing research on how to properly develop their promotion and prevention frames in terms of the message's overall valence and outcome focus.

Second, this research supported the asymmetry in the perception of the four types of outcome in the context of advertising, and showed how this mechanism works for persuasion. Even though there have been research efforts to examine the effects of gains,

non-gains, losses, and non-losses, but these studies only confirmed, mainly within the domain of psychology, which outcome experiences were more intense (e.g., Idson et al., 2000: subjective feelings; Liberman et al., 2005: fairness and generosity evaluations; (Sacchi & Stanca, 2014: satisfaction and luck perceptions). Or these studies examined the effects of outcome framing without any consideration of variables that fall in the “middle,” providing a key link between message framing and its effectiveness (e.g., Bechkoff et al., 2009; Dijkstra et al., 2011; Yi & Baumgartner, 2009). In this respect, this research provides empirical evidence of the novel mechanism of the effects of the four types of regulatory-focused message framing on persuasion through systematic change in subjective feelings.

Third, the findings of this research support not the notion of prospect theory (Kahneman et al., 1986; 1990, 1991) but rather that of regulatory focus theory (Higgins, 1997, 1998). It replicated the extant results (e.g., Idson et al., 2000; Liberman et al., 2005) that a loss is more painful than a non-gain and a gain is more pleasant than a non-loss. This finding is opposite to the prediction derived from the LA principle of prospect theory, which asserts that a non-loss should be evaluated in terms of the relatively steep loss curve and thus be more intense than a gain (Kahneman et al., 1986; 1990; 1991). It was thus reasoned that regulatory focus theory provides more convincing explanations for what type and intensity of emotions are involved in experiences of the four different types of outcomes.

Lastly, this research also found regulatory fit effects on individuals' evaluations towards helping others through identifying a significant moderating role of their momentary regulatory focus. The patterns of the three-way interaction revealed that promotion-primed people were influenced by the gain-anchored outcomes only. They evaluated more positively gain frames than non-gain frames. Prevention-primed people

were more persuaded by the loss-anchored outcomes, weighting more the frame of non-loss than that of non-gain.

From a theoretical point of view, the results are in line with the postulate of regulatory focus theory (Higgins, 1997, 2000; Higgins et al., 2001; Higgins et al., 2003; Idson et al., 2000; Molden et al., 2008). According to regulatory focus theory, individuals having a promotion focus regulate themselves in relation to their hopes and aspirations (i.e., ideal self). Thus, success and failure in a promotion focus are experienced as the presence of positive outcomes (gain) and the absence of positive outcomes (non-gain), respectively. In contrast, those with a prevention focus value their duties and obligations (i.e., ought self) and regulate behavior away from potential threats or punishments. In this respect, success and failure in a prevention focus are experienced as the absence of negative outcomes (non-loss) and the presence of negative outcomes (loss), respectively.

Taken together, the findings of this research imply, in theory, not only that the same objective magnitude can be weighed differently because of its frame (overall valence and outcome focus) but also that the same outcome can have different subjective values for different people, or for the same person in different situations, depending on their motivational state, goals, and regulatory orientation.

### **VII.3.2. Practical/Managerial Implications**

In addition to the contributions to theory, the current research also has important implications for practitioners in social or cause-related marketing and nonprofit sectors. First, in the real world, the four types of outcomes are frequently framed in their philanthropy messages. For example, a social cause for children is addressed through a “gain” frame (e.g., Habitat for Humanity’s “a child can have a house she desperately needs.”), a “non-loss” frame (e.g., Unicef’s “child sexual exploitation does not exist.”), a

“non-gain” frame (e.g., World Vision’s “not every child gets a childhood.”) or a loss frame (e.g., Christian aid’s “a child dies every 10 seconds as a result of malnutrition.”). Given the prevalence of the four types of outcome framing, the proposed message classifications of this research and their asymmetric results on message effectiveness should provide practitioners a sound guideline for future message development.

Second, participants felt asymmetrical subjective feelings from the ad even when each outcome of the message frame was directly relevant to others instead of the self. In most previous studies, researchers have investigated the asymmetry in the perception with outcome scenarios that focus on self-serving purposes by asking participants to imagine a prospective outcome when buying a book (Idson et al., 2000), buying a laptop computer and negotiating wage (Lieberman et al., 2005), or consuming fruit and vegetables (Dijkstra et al., 2011; Yi & Baumgartner, 2009). As the ways of extending previous research and providing empirical evidence for practice, this research demonstrated that the four types of regulatory-focused messages can induce enough intensity of subjective feelings that might effectively carry over to the ad effectiveness even in the “altruistic” charitable appeals that call for action to aid others in need.

Above all, through finding a significant three-way interaction, this research suggested the value of an expected outcome are not constant but rather contingent on the message recipients’ regulatory focus. That is, this research showed that the ad framed as a gain, which is the representation of success promotion, was most effective at promoting individuals’ helping and giving behaviors only when participants were in a promotion focus. Conversely, the ad framed as a non-loss, the representation of success prevention, was the most persuasive only for those in a prevention focus. Therefore, the effect of regulatory-focused messages cannot be understood without considering what the outcome means given a recipient’s regulatory focus.

If regulatory focus resides in individuals' disposition, it is important for practitioners to determine whether their audience is heterogeneous with respect to a chronic regulatory focus for better targeting. For example, it is known that people in individualistic cultures (e.g., United States) are more promotion-focused than are people from collectivistic cultures (e.g., China; Aaker & Lee, 2001; Higgins, 2008; Lalwani, Shrum, & Chiu, 2009; Zhang & Mittal, 2007). In this respect, practitioners should consider the cultural background of their target audience, which might chronically relate to a specific type of regulatory foci. According to the intended level of localization or globalization (e.g., local, national, multi-national vs. international ad campaigns), practitioners' communication message should be tailed with the congruent regulatory focus for better persuasion.

A chronic regulatory focus also has a clear implication for nonprofits dealing with gender-specific issues. According to Sassenberg, Brazy, Jonas, and Shah (2013), females tend to be more sensitive, caring, dependent, and security-oriented, while males tend to be more daring, competitive, ambitious, and achievement-oriented. These regulatory implications of gender, along with the findings of this research, hold implications for nonprofit organizations promoting social causes for women (e.g., breast cancer, sexual abuse, and domestic violence). The message that seems to be more accessible and have high persuasion potential is a prevention-focused message, especially the non-loss frame. For nonprofits promoting social causes for men (e.g., testicular cancer, and gay right), a more appropriate, comprehensible, and relevant message would be a promotion-focused message, especially one using the gain frame.

However, this research showed that a certain situation (e.g., writing task) can temporarily induce either a promotion or prevention focus among the participants. Thus, in addition to considering their target audience's chronic regulatory focus, practitioners

may be able to make salient or prime a single regulatory focus through their choice of advertising vehicles, and strategically place their advertisements that include the congruent regulatory focus. As suggested by Zhao and Pechmann (2007), the once-popular television show *24*, which deals with the threat of domestic terrorism, may tend to activate a prevention focus. The television show *American Idol*, which is about becoming a professional singer, may tend to activate a promotion focus. Accordingly, prevention-focused advertisements (e.g., non-losses) could be aired on *24*; promotion-focused advertisements (e.g., gain) could be aired on *American Idol*.

Furthermore, the target audience's regulatory focus can be altered temporarily by utilizing the nature of events or activities that practitioners are planning to promote. For instance, many of the nonprofits hold annual sporting events to fundraise for a healthier lifestyle (e.g., the American Cancer Society's Relay for Life). The nature of these events is one meant to encourage the audience's eagerness to achieve and to cultivate a spirit of challenge and competition. These types of events are more related to nurturance needs and strong ideals of the promotion focus, which are better suited to an ad campaign framed as a gain. In contrast, nonprofits for disaster relief or blood donations often promote volunteer activities that underlie safety concerns and fulfillment of duties/obligations. Since those activities have more association with security needs and strong oughts of the preventions focus, the more appropriate ad campaign would be framed as a non-loss.

In sum, the current research suggests that the impact of philanthropy advertising can be enhanced through aligning the message's valence and outcome focus to recipients' chronic or momentary regulatory focus. Usually, the valence and focus of the message are under the control of practitioners who are also able to have possible influence on their target audience through the choice of advertising vehicles or promoting relevant events

and activities. Therefore, practitioners can have a better understanding of when and for whom a regulatory foci in the messages will have an effect, thereby allowing more proper message development and more precise predictions about the message effectiveness.

#### **VII.4. LIMITATIONS AND FUTURE RESEARCH**

Although this research has many strengths and implications, it also has the following limitations. This research examined only the ads about disaster relief (Study 1) and child hunger (Studies 2 and 3). As noted in the discussions above, Study 1 failed to find a significant carry-over effect of message framing on ad effectiveness through change in subjective feelings; Study 2 succeeded at finding one. The inconsistent results might be caused by different characteristics of the social causes used for both studies (e.g., the level of geographical proximity or urgency). Thus, the generalization of the findings to other cause types may be limited. Future research should examine the predictions of this research with other types of social causes.

Second, this research did not consider potential donors' other characteristics, such as cause/issue involvement, self-efficacy (i.e., a belief about one's ability to succeed with the suggested behavior), or past donation history that might influence their responses to the different types of message frame. Previous literature reported the possible influence of these individual factors. Loss frames are more persuasive for highly involved individuals; gain-framed messages are more persuasive for little involved individuals (Maheswaran & Meyers-Levy, 1990). Also, for future intentions on prosocial behavior, research has found that one of the most important predictors is past behavior (Lee, Piliavin, & Call, 1999). Lastly, the findings of this research might be affected by a type of response bias called social desirability bias—the tendency of survey respondents to answer questions in a manner that will be viewed favorably by others (Chan, Wong, & Leung, 2008; Pepper, Jackson, & Uzzell, 2009). Therefore, future research should

consider these individuals' characteristics as meaningful moderators or confounding variables in message-framing research.

Third, this research utilized different types of image across the three studies, which might have led to the inconsistent findings. For example, Study 1 used a real picture of the large burn area in California. Using the vivid real image could have made people take the issue more seriously or made them consider the message heavy-handed thereby resulting in any avoidance or reactance. Also, showing the burn area might induce negatively valenced feelings among the message recipients, which can be accidentally compounded with regulatory foci framed in the messages.

Thus, in an effort to choose a neutral image and to control any possible salience in valence, the ad stimuli for Studies 2 and 3 adopted an image showing five children, coincident with the accompanying message (i.e., "1 in 5 Children in America Faces Hunger."). However, the illustration image could be too lighthearted and unreal, which might inadvertently weaken the message-framing effects. As an element initially processed in the ad, the ad image provides recipients with expectations as to the nature of the verbal messages (Houston, Childers, & Heckler, 1987). Therefore in future research, the ad image should be selected with more caution, while considering potential effects of using a real picture versus an illustration in the ad.

In addition, Idson et al. (2000) supported that gains, non-losses, losses and non-gains produce, respectively, relatively high-intensity joy, relatively low-intensity calmness, relatively high-intensity tenseness, and relatively low-intensity sadness. In this respect, future research efforts could examine how the visual image displaying different facial expressions, such as happiness, contentment, anger, and sadness interplay with the four types of regulatory-focused message framing on persuasion. Through such studies, we could gain a better understating of the effects of congruent or incongruent visual

images with verbal messages on ad effectiveness (Chang & Lee, 2009; Heckler & Childers, 1992; Houston et al., 1987; Seo, Dillard, & Shen, 2013).

Future research needs to examine whether the findings of this research hold up when considering individuals' regulatory foci as chronic psychological disposition. Also, Yi and Baumgartner (2009) suggested that the moderating effects of individuals' regulatory focus on message framing depends on the way their chronic regulatory focus is measured. In this respect, future research needs to compare the effects of validated scales frequently used for assessing individuals' chronic regulatory focus. There are three—Higgins et al.'s (2001) Regulatory Focus Questionnaire (RFQ), Lockwood et al.'s (2002) scale of regulatory focus, and Carver and White's (1994) BIS/BAS scale.

Furthermore, this research adopted an essay-writing task to situationally prime individuals' regulatory focus, as suggested in the literature (Freitas et al., 2002; Pham & Avnet, 2004; Zhao & Pechmann, 2007). Other than this technique, future research may also consider different ways of priming momentary regulatory focus, such as a word-categorization task (Lockwood, et. al., 2002) or a paper-and-pencil maze task (Friedman & Förster, 2001; Lin & Shen, 2012), and see if the patterns of results are replicated.

Fifth, this research promoted only one type of prosocial behavior—donating money. However, previous literature has demonstrated that message-framing effects might differ depending on the types of promoted behaviors. For example, in health communication, loss frames were verified to be more effective in promoting all early-detection (screening) behaviors, such as mammography, BSE, and HIV testing. In contrast, gain frames were found to be more persuasive in promoting all prevention behaviors, such as infant car restraints, physical exercise, smoking cessation, and sunscreen (Salovey, Schneider, & Apanovitch, 2002).

Also, recent studies on prosocial behavior have revealed different time versus money asking effects at impacting willingness to donate to charitable causes. For example, Liu and Aaker (2008) found that asking individuals to think about “how much time they would like to donate” (vs. “how much money they would like to donate”) to a charity increases the amount that they ultimately donate to the charity. This is because answering a question about one’s intention to volunteer time makes salient the emotional significance of the event (e.g., emotional meaning), whereby people view charity as a means towards happiness and have a more positive inclination towards giving to charity.

MacDonnell and White (2015) also empirically tested whether money is construed relatively more concretely and time more abstractly. Therefore, when a concrete (abstract) consumer mindset is activated, a request for money (time) yielded more generous charitable-giving intentions and behaviors. Based on these findings, future research should examine whether the type of prosocial behavior being promoted (e.g., donations for money vs. time vs. blood/organs) helps to clarify the influence of message framing on helping and giving behavior.

Sixth, this research supported the asymmetry in perceptions even when the ad mainly adopted altruistic appeals for anonymous survivors and children. However, previous literature has indicated that in-group versus out-group distinctions in message framing may lead to different persuasive effects (Cross, Bacon, & Morris, 2000). Also, when it comes to ecological cooperation for animals or the natural environment, people tend to exhibit a different level of self-views called “metapersonal-self construal,” which affects their response to green advertising (Arnocky, Stroink, & DeCicco, 2007; DeCicco & Stroink, 2007; Kareklas et al., 2012). In this respect, future research needs to compare the intensity levels of subjective feelings induced from different outcome frames and their carry-over effects on persuasion when philanthropy advertising frames the

beneficiaries or victims of the action or inaction as “close others (e.g., community or friend or family),” “all others (e.g., unknown people or all humankind),” or “all life forms (e.g., environment or animals).”

In addition, according to Hong and Lee (2018), some philanthropy advertising has adopted the egoistic self-benefit appeals to promote donations as ways to alleviate the donor’s aversive arousal (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997), or enhance their mood (e.g., “Give blood, save lives, and feel good,” Smith, Keating, & Stotland, 1989), boost self-esteem (e.g., “You’re all equipped with life-saving devices,” Batson, 1987), and create a good impression if it is visible to others (e.g., “Find the hero in you,” Arnett, German, & Hunt, 2003). In this respect, compared to the altruistic others-benefit appeals, future research needs to examine how the egoistic self-benefit appeals work and what the changes are in terms of subjective feelings and cost-benefit ratio among recipients, while maintaining the design of this research.

Lastly, participants of this research were exposed to philanthropy advertising in circumstances where more forced viewing conditions would typically be expected. Unlike real-world settings where many stimuli compete for an individual’s attention, participants of this research were only given the manipulated ad stimulus that was isolated from any other type of advertisement and editorial content. Under natural viewing conditions, however, the four types of regulatory-focused message framing might interact with other components of the ad or features of the media vehicles. For this reason, replications of this research in a real-world-like setting will undoubtedly contribute to the generalizability of the current research findings.

## Appendices

### Appendix 1. Regulatory-Focused Messages in Previous Studies

Message's Regulatory Focus				
Study & Objectives	Message Operationalization		Main Findings	
Aaker & Lee (2001); Examined matching of information with one's chronically or temporarily accessible self-view leads to enhanced evaluations; the process that underlies these effects.	<u>Study 1: Promotion</u> "Further, preliminary medical research suggests that drinking purple grape juice may contribute to the creation of greater energy! Growing evidence suggests that diets rich in Vitamin C and iron lead to higher energy levels."	Gain	Individuals with independent (interdependent)-self view are more persuaded by promotion (prevention)-focused message consistent with an approach (avoidance) goal.	
	<u>Study 1: Prevention</u> "Further, preliminary medical research suggests that drinking purple grape juice may contribute to healthy cardiovascular function. Growing evidence suggests that diets rich in antioxidants may reduce the risk of some cancers and heart disease."	Gain + Non-loss		
	<u>Study 2: Promotion</u> "If you win this last match, you will win the championship title and bring home the huge trophy."	Gain		
	<u>Study 2: Prevention</u> "If you lose this last match, you will lose the championship title and not bring home the huge trophy."	Non-gain		
Lee & Aaker (2004); Examined the moderating role of both regulatory focus and perceived risk on message framing effects manipulated by both of promotion-/prevention- and gain-/loss- framed information; examined the mediating role of processing fluency on regulatory fit effects.	<u>Study 1: Promotion</u> (e.g., Increased energy)	<u>Gain</u> "Get Energized!"	Gain	Appeals presented in gain frames are more persuasive when the message is promotion focused, whereas loss-framed appeals are more persuasive when the message is prevention focused. These regulatory focus effects suggesting heightened vigilance against negative outcomes and heightened eagerness toward positive outcomes are replicated when perceived risk is manipulated. Enhanced processing fluency leading to more favorable evaluations in conditions of compatibility appears to underlie these effects.
		<u>Loss</u> "Don't Miss Out on Getting Energized."	Non-standard	
	<u>Study 1: Prevention</u> (e.g., Cancers/heart disease prevention)	<u>Gain</u> "Prevent Clogged Arteries!"	Non-loss	
		<u>Loss</u> "Don't Miss Out on Preventing Clogged Arteries!"	Non-standard	
	<u>Study 2: Promotion</u> (e.g., Increased energy)	<u>Gain</u> "Enjoy life! Bask in the warm rays of the sun, feeling completely happy. Let SunSkin™ be a part of your daily routine. Enjoy Life. SUNSKIN™."	Gain	
		<u>Loss</u> "Don't miss out on enjoying life! Not being able to bask in the warm rays of the sun may stand in the way of your feeling completely happy. Let SUNSKIN™ be a part of your daily routine. Don't Miss Out on Enjoying Life. SUNSKIN™."	Non-standard + Non-gain	

	<u>Study 2: Prevention</u> (e.g., Cancers/heart disease prevention)	<u>Gain</u> “Be safe! Know that you are risk free from sunburns, feeling completely relaxed. Let SunSkin™ be a part of your daily routine. Be Safe. SUNSKIN™.”	Gain	
		<u>Loss</u> “Don’t miss out on being safe! Not knowing you are risk-free from sunburns may stand in the way of your feeling completely relaxed. Let SUNSKIN™ be a part of your daily routine. Don’t Miss Out on Being Safe. SUNSKIN™.”	Non-standard + Non-gain	
	<u>Study 3: Gain</u> “Enjoy life! Know that you are risk free from mononucleosis. Let SU-PRANOX™ be a part of your daily routine. It is important to enjoy life. SUPRANOX™ helps you do that—by allowing you to fight an illness even before you have it. Enjoy Life. SU-PRANOX™.”	Gain + Non-loss		
	<u>Study 3: Loss</u> “Don’t miss out on enjoying life! Not knowing that you are risk free from mononucleosis? Let SUPRANOX™ be a part of your daily routine. It is important not to miss out on enjoying life. SUPRANOX™ helps you do that—by allowing you to fight an illness even before you have it. Don’t Miss Out on Enjoying Life. SUPRANOX™.”	Non-standard + Non-loss		
Cesario et al. (2004); Examined when a message recipient “feels right” from regulatory fit, whether this subjective experience transfers to the persuasion context and serves as information for relevant evaluations.	<u>Study 1: Promotion</u> (e.g., Increased energy and general fulfillment)	<u>Eager Means</u> “If you eat the right amount of fruits and vegetables daily, you can experience an overall sense of feeling good about yourself.”	Gain	Regulatory fit enhanced perceived persuasiveness and opinion ratings. These effects were eliminated when the correct source of feeling right was made salient before message exposure, supporting the misattribution account. These effects reversed when message-related thoughts were negative, supporting the claim that fit provides information about the “rightness” of one’s (positive or negative) evaluations.
		<u>Vigilant Means</u> “If you do not eat the right amount of fruits and vegetables daily, you will not experience an overall sense of feeling good about yourself.”	Non-gain	
	<u>Study 1: Prevention</u> (e.g., Protection from harmful daily elements)	<u>Eager Means</u> “If you eat the right amount of fruits and vegetables, you can actively help keep yourself safe from illness and obtain overall good health.”	Non-loss + Gain	
		<u>Vigilant Means</u> “If you do not eat the right amount of fruits and vegetables, you cannot actively help keep yourself safe from illness and obtain overall good health.”	Loss	

	<u>Study 2: Eager Means</u> “The primary reason for supporting this program is because it will advance children’s education and support more children to succeed.”	Gain	
	<u>Study 2: Vigilant Means</u> “The primary reason for supporting this program is because it will secure children’s education and prevent more children from failing.”	Non-loss	
Kim (2006); Examined how regulatory-focused message framing influences the effectiveness of advertising messages aimed at preventing smoking among adolescents.	<u>Promotion</u> “Do Not Smoke!” If you do not smoke, you can obtain positive results, such as improving your respiratory system, enhancing your brain power, having fresh breath and whiter teeth (which is more attractive to dates), and more important, attaining greater energy for your everyday life.”	Gain	Adolescents demonstrate lower intentions to smoke, lower perceived pharmacological benefits of smoking, and lower perceived psychological benefits of smoking when the fit between the regulatory goal and the antismoking message frame is congruent.
	<u>Prevention</u> “Do Not Smoke!” If you do not smoke, you can avoid negative results, such as lung cancer, brain damage, bad breath and yellow teeth (which is less attractive to dates), and more important, you can protect your life.	Non-loss + Gain	
Wang & Lee (2006); Examined how consumers' regulatory focus affects their information search behavior and decision-making process.	<u>Promotion</u> “This toothpaste has natural polishers to whiten your teeth. It freshens your breath with perilla seed extract, grapefruit seed extract, and natural essential oils of orange and mint. It strengthens tooth enamel with high potency Ester C liquid, a complex of calcium, sodium, magnesium, sinc ascorbates, and L-ascorbic acid.”	Gain	Participants paid more attention to and based their product evaluation on product information that is relevant to their regulatory concerns, but only when they were not motivated to process information.
	<u>Prevention</u> “This toothpaste contains three primary enzymes, which help prevent gingivitis. It prevents cavities with tea tree oil, which helps to inhibit the growth of decay and plaque-causing bacteria. It has a special ingredient (Calprox), which helps you fight plaque buildup.”	Non-loss	
Kees, Burton, & Tangari, (2010); Examined the effects of message framing of health advertisements and individual differences in temporal orientation on consumer risk perceptions, attitude, and behavioral intentions.	<u>Study 1: Promotion</u> “Seek Healthy Foods and Exercise to Manage Body Weight.”	Gain	Goal pursuit strategies manipulation in the ad message has a significant influence on consumers’ attitude toward the ad; this effect is moderated by temporal orientation, however; consumer risk perceptions mediate the interaction effect.
	<u>Study 1: Prevention</u> “Avoid Unhealthy Foods and Inactivity to Manage Body Weight.”	Non-loss	
	<u>Study 2: Promotion</u> “Want to Look and Feel Great? Diet and exercise can help you achieve your goals! A balanced diet of healthy foods and regular exercise will boost your energy level and make you better able to accomplish all you want out of life.”	Gain	
	<u>Study 2: Prevention</u> “Want to Prevent Cancer and Heart Disease? Diet and exercise can help you avoid these health risks! A balanced diet of healthy foods and regular exercise will protect your body and keep you safe.”	Non-loss + Gain	
Micu & Chowdhury (2010);	<u>Promotion + Hedonic Product:</u> “Eat Delicia Ice Cream to Get Energized!” A cup of Delicia Ice Cream a day contributes to the	Gain	Promotion focus messages are more effective (generate more

Examined the role of message's regulatory focus (promotion versus prevention) in advertisements for different product types (hedonic versus utilitarian).	creation of greater energy, stronger bones, and enhancement of work performance.”		positive feelings, have greater recall and persuasiveness) than prevention focus messages for hedonic products; prevention focus messages are more effective than promotion focus messages for utilitarian products.
	<u>Prevention + Hedonic Product:</u> “Eat Delicia Ice Cream to Avoid Certain Diseases! A cup of Delicia Ice Cream a day contributes to the prevention of high blood pressure, reducing the risk of colon cancer, and lowering the chances of developing kidney stones.”	Non-loss	
	<u>Promotion + Utilitarian Product:</u> “Get Energized with Vita Water. It's not just water VitaWater is specially formulated to provide the body with an immediate source of energy. Growing evidence suggests that diets rich in vitamin C and vitamin 83 (Niacin) contained in vitamin water lead to higher energy levels.”	Gain	
Kareklas, Carlson, & Muehling (2012); Examined how promotion- versus prevention-focused messages interact with consumers' situationally manipulated self-view (i.e., independent versus interdependent).	<u>Study 2: Promotion (Environmental Appeals)</u> “The Farmer's Cow's organic farming helps maintain the state's natural landscape and improves air, water, and soil quality.”	Gain	Prevention (prevention)-focused environmental appeals generated more favorable attitudes for individuals who are situationally primed to have an independent (interdependent) self-view. However, the revers patterns of relationship were found only when persuasive messages focus on personal health appeals.
	<u>Study 2: Prevention (Environmental Appeals)</u> “The Farmer's Cow's organic farming helps to prevent the deterioration of the state's natural landscape and keeps harmful chemicals out of the air, water, and soil.	Non-loss	
	<u>Study 2: Promotion (Health Appeals)</u> “Drinking organic milk, the Farmer's Cow, helps promote a healthy lifestyle and that studies show that organic milk increases energy levels by providing essential nutrients.”	Gain	
	<u>Study 2: Prevention (Health Appeals)</u> “Drinking organic milk, the Farmer's Cow, helps prevent an unhealthy lifestyle, and that studies show that organic milk reduces the risk of disease.”	Non-loss	
McKay-Nesbitt, Bhatnagar, & Smith (2013); Examined regulatory fit effects between gender and regulatory-focused messages on persuasion; and mediating role of chronic regulatory focus and emotion.	<u>Promotion</u> “Exercise is good for your weight. When you are physically active, you burn off calories. The more you exercise the more calories you burn.”	Gain	Identified gender differences in chronic regulatory focus; congruence between message regulatory focus and the recipient's gender is effective for males; chronic regulatory focus and emotions mediate regulatory fit effects on intentions
	<u>Prevention</u> “Exercise prevents weight problems. When you are inactive, it is hard to burn off the calories you eat. People who don't exercise are more likely to have weight problems.”	Non-loss + Loss	

Matching Gain vs. Loss Frame with Individuals' Regulatory Focus			
Study & Objective	Message Operationalization		Main Findings
Sherman et al. (2006); Examined whether health messages framed to be congruent with individuals' approach/avoidance motivations are more effective in promoting health behaviors than health messages incongruent with approach/avoidance motivations.	<u>Gain</u> "Great Breath, Healthy Gums Only a Floss Away."	Gain	Participants who read a congruently framed message had greater flossing efficacy, intended to floss more, and used more dental flosses than did the participants who read an incongruent message. Moreover, intention to perform the behavior predicted the congruency effect and self-efficacy mediated participants' intentions to perform the health behavior.
	<u>Loss</u> "Floss Now and Avoid Bad Breath and Gum Disease."	Non-loss	
Uskul, Sherman & Fitzgibbon (2009); Examined the persuasive effects of matching message frame to individuals' regulatory foci.	<u>Gain</u> "Healthy Teeth and Gums Only a Floss Away. Consistent good flossing leads to more healthy gums and bones that support the teeth; those who floss regularly are three times more likely to have healthier teeth with no cavities; flossing allows a healthy-looking mouth and smile, and also greater enjoyment of foods and drinks."	Gain	White British (East-Asian) participants, who had a stronger promotion (prevention) focus, were more persuaded by the gain (loss)-framed message.
	<u>Loss</u> "Floss Now or Suffer from Cavities and Gum Disease. If you don't floss your teeth daily, particles of food remain in the mouth, collecting bacteria, which causes bad breath; those who don't floss are almost three times as likely to suffer from cavities; not flossing can be the cause of serious tooth pain and sensitivity."	Loss	
Lin & Shen (2012); Examined whether the compatibility among participants' regulatory focus (promotion vs. prevention), frames (gain vs. loss) and product attributes (hedonic vs. utilitarian) could affect ad and brand attitudes, and purchase intention.	<u>Hedonic Attributes+Gain for Shampoo</u> "Take a chance on having thick and shiny hair. Want attractive hair? Try K&L shampoo. Using this unique multi-vitamin formula, your hair will be silky. Have the opportunity to add volume to your hair. This natural aromatic shampoo leaves your hair smelling great. With K&L, your hair will look shiny and thick. K&L... a hair necessity!" <u>Hedonic Attributes+Gain for Backpack</u> "Stay one step ahead of fashion. Want a cool-looking backpack? Try Ultimate backpack. Using this backpack with assorted colors and prints will fit whatever you wear. Have the opportunity to own a backpack on the front line of style this year. Backpacks with attractive and stylish accessories put you right in the fashion trend. With Ultimate, you will feel cool."	Gain	When promotion-focused individuals were matched with gain frames, ads were more persuasive. However, message frames did not change attitudes for prevention individuals; Promotion-focused individuals found messages emphasizing hedonic attributes more persuasive than prevention-focused individuals, who in turn found messages with utilitarian attributes

	<p><u>Hedonic Attributes+Loss for Shampoo</u>  “Don’t get flat and dull hair. Tired of unattractive hair? Try K&amp;L shampoo. By not using this unique multi-vitamin formula, your hair may be dry. Don’t miss out on an opportunity to lift limp hair. Shampoos with no natural aroma won’t get rid of that bad smell. Without K&amp;L, your hair may look dull and flat. K&amp;L... a hair necessity!”</p> <p><u>Hedonic Attributes+Loss for Backpack</u>  “Don’t be left behind by fashion. Tired of having a boring backpack? Try Ultimate backpack. By not using this backpack with assorted colors and prints, you may have no sense of style. Don’t miss out on an opportunity to own a backpack that won’t be on the backburner of style this year. Backpack lacking attractive and stylish accessories will keep you in a fashion rut. Without Ultimate, you may feel uncool.”</p>	Non-loss + Loss	more persuasive; Brand evaluations were more favorable when promotion individuals viewed hedonic attributes being framed as gains or when prevention individuals viewed utilitarian attributes being framed as losses; Processing fluency was a significant factor mediating the relationship between regulatory goals, message frames and product attributes.
	<p><u>Utilitarian Attributes+Gain for Shampoo</u>  “Take a chance on having clean and healthy hair. Want healthier hair? Try K&amp;L shampoo. Using this cleaning formula will leave your scalp feeling fresh. Have the opportunity to maintain your natural hair proteins. Its all-natural proteins make your hair healthy. With K&amp;L, your hair will be strong and manageable. K&amp;L... a hair necessity!”</p> <p><u>Utilitarian Attributes+Gain for Backpack</u>  “Gain comfort with a durable backpack. Want a functional backpack? Try Ultimate backpack. Using this backpack with side pockets for cell phones and water bottles helps you organize your belongings. Have the opportunity to own a backpack with zippered-up tops which protects your stuff. Backpacks with padded and adjustable shoulder straps will leave your back and shoulders feeling comfortable. With Ultimate, your life becomes organized.”</p>	Gain	
	<p><u>Utilitarian Attributes+Loss for Shampoo</u>  “Don’t get dandruff and unhealthy hair. Tired of unhealthy hair? Try K&amp;L shampoo. By not using this cleaning formula, your hair may have excess build-up. Don’t miss out on an opportunity to restore your natural hair proteins. Shampoos with no natural proteins make your hair unhealthy. Without K&amp;L, your hair may have split ends and unwanted kinks. K&amp;L... a hair necessity!”</p> <p><u>Utilitarian Attributes+Loss for Backpack</u>  “Don’t get back pains from a flimsy backpack. Tired of a dysfunctional backpack? Try Ultimate backpack. Not using this backpack with side pockets for cell phones and water bottles will leave your belongings messy. Don’t miss out on an opportunity to own a backpack with zippered-up tops to avoid losing your stuff. Backpacks lacking padded and adjustable shoulder straps will leave your back and shoulders feeling pain. Without Ultimate, your life may become a mess.”</p>	Non-loss + Loss	

**Appendix 2. Ad Stimuli in Study 1**

Gain	Non-Loss
<p data-bbox="267 436 781 464">People affected by the California forest fire need your help</p>  <p data-bbox="293 682 764 758">With generous donations from people like you, survivors will have access to immediate financial assistance, emergency housing, and emotional and spiritual care.</p> 	<p data-bbox="842 436 1356 464">People affected by the California forest fire need your help</p>  <p data-bbox="868 682 1339 758">With generous donations from people like you, survivors will be able to recover from property and personal financial loss, displacement, and emotional shock and trauma.</p> 
Non-Gain	Loss
<p data-bbox="267 926 781 953">People affected by the California forest fire need your help</p>  <p data-bbox="293 1171 764 1247">Without generous donations from people like you, survivors will not have access to immediate financial assistance, emergency housing, and emotional and spiritual care.</p> 	<p data-bbox="842 926 1356 953">People affected by the California forest fire need your help</p>  <p data-bbox="868 1171 1339 1247">Without generous donations from people like you, survivors will continue to suffer from property and personal financial loss, displacement, and emotional shock and trauma.</p> 

### Appendix 3. Ad Stimuli in Studies 2~3

Gain	Non-Loss
 <p data-bbox="261 562 787 611">"1 in 5 Children in America Faces Hunger"</p> <p data-bbox="261 617 787 766">With generous donations from people like you, children will have access to adequate food and nutrition, thus ensuring healthy growth, a strong immune system, and sound neurological and cognitive development.</p>	 <p data-bbox="836 562 1362 611">"1 in 5 Children in America Faces Hunger"</p> <p data-bbox="836 617 1362 766">With generous donations from people like you, children will avoid poverty and starvation, thus averting the risks of chronic disease, immune system dysfunction, and neurological and cognitive impairment.</p>
Non-Gain	Loss
 <p data-bbox="261 1052 787 1100">"1 in 5 Children in America Faces Hunger"</p> <p data-bbox="261 1106 787 1255">Without generous donations from people like you, children will not have access to adequate food and nutrition, thus hindering healthy growth, a strong immune system, and sound neurological and cognitive development.</p>	 <p data-bbox="836 1052 1362 1100">"1 in 5 Children in America Faces Hunger"</p> <p data-bbox="836 1106 1362 1255">Without generous donations from people like you, children will continue to suffer from poverty and starvation, thus, risking chronic disease, immune system dysfunction, and neurological and cognitive impairment.</p>

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