THESIS

HELPING BEHAVIORS DURING DISASTER REPORTING STAGES:

A MEASURE OF INNATE AND CONDITIONED DIFFERENCES IN EMPATHY AND

COMPASSION GENERATION

Submitted by

Jena J. Thompson

Department of Journalism and Media Communication

In partial fulfillment of the requirements

For the Degree of Master of Science

Colorado State University

Fort Collins, Colorado

Fall 2015

Master's Committee:

    Advisor: Ashley Anderson

    Craig Trumbo
    Kimberly Henry

ABSTRACT

HELPING BEHAVIORS DURING DISASTER REPORTING STAGES:
A MEASURE OF INNATE AND CONDITIONED DIFFERENCES IN EMPATHY AND
COMPASSION GENERATION

The frequency of significant disasters has increased, worldwide; yet, donations have not steadily increased to provide sufficient disaster relief for those affected by the events. This study investigates how two disaster news reporting stages (Stage 1 and 2) with different newswriting formats (hard and soft news stories) can affect millennials' generation of empathy, compassion, and helping behaviors. Innate tendencies (in the form of emotional contagion and gender differences) and conditioned responses (through internalization of the principle of care) were also considered as moderating variables for helping behaviors. The study incorporated an experimental design with random assignment to a Stage 1, hard news story or Stage 2, soft news story condition. While no significant relationships were found among generated empathy, compassion, or helping behavior intent in either news story condition; significant results were found for emotional contagion and gender differences' moderating role in helping behavior intent, as well as the principle of care's effect on donation decisions. Best practices for improving disaster relief communication campaigns include 1) heightened fundraising campaigns during Stage 1 and 2 reporting, 2) strategic content organization to increase helping behavior likelihood, 3) utilizing media platforms catered more toward females, 4) more emphasis on volunteering opportunities for millennials rather than financial investments, 5) greater diversity in terms of who millennials can partner with to aid in disaster relief, and 6) continued

improvement of communication campaigns directed toward millennials and commitment to

include this generation in disaster recovery efforts.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER ONE: INTRODUCTION

Within the past 60 years, the frequency of natural and technological disasters has drastically increased. Specifically in the U.S., federally declared disasters have risen from 13 in 1953 to a maximum of 242 in 2011 (FEMA, 2014). Additionally, as of April 11, 2015, there were 40 major ongoing disasters throughout the world (ReliefWeb, 2015). The kneejerk reaction to these statistics may be to ponder the cause of such a dramatic increase. However, this explanatory function of disaster research has a tendency to focus too much on the past, while ignoring the current circumstances. Therefore, this study will focus less on the event, and more on the consequences of the event (i.e., impacts on individuals and communities).

Fritz (1961) defines disasters as "actual or threatened accidental or uncontrollable events" in which a significant percentage of a community "incurs such losses to its members and physical appurtenances that the social structure is disrupted" (p. 655). In this sense, "disruption" refers to an inability to perform daily activities such as school, work, travel, etc. Fischer (2008) elaborates on the concept of disruption by categorizing it in terms of scale, scope, and time. In other words, an event's severity, range of destruction, and duration will determine the amount of disruption a community experiences. In his 10-category scale of disasters, Fischer details the variation in all three components, beginning with Disaster Category 1: Everyday emergencies, and ending with Disaster Category 10: Annihilation of an entire society (p. 7). Although societal annihilation is quite rare, it is not uncommon to see Category 5 ("partial disruption and adjustment in a small or medium city") through Category 7 ("partial disruption and adjustment in a large city"; p. 10).

This frequency of mid- to upper-level disasters suggests a significant number of disaster victims per year. From 1990 to 2012, the number of disaster victims, worldwide, ranged from 81 million to 671 million per year (Guha-Sapir, Hoyois, & Below, 2013). However, it is important to note that the year that reported 671 million victims was an outlier. Most years ranged from 200-300 million disaster victims. When a major disaster occurs grassroots, faith-based, non-governmental organizations, and nonprofits solicit donations to aid these victims. Donations can be a person's time, talent, or treasure (i.e., volunteering and donating material and monetary possessions). Yet, several studies have shown that the amount donated to victims is insufficient to remedy the disruption. For instance, the Center on Philanthropy at Indiana University's (2010) study found that, on average, people in urban communities donated $2,243 annually. Rural community members donated an average of $1,908 annually. If the entire U.S. population of 313 million (80% urban, 20% rural; U.S. Census Bureau, 2010) donated these amounts, victims could receive a total of $681 billion. That averages to $2,270 per victim (for 300 million victims). However, a National Philanthropic Trust (2013) study found that only $316 billion were donated in 2012. That drops the average down to $1,053 per disaster victim. Of course, the U.S. is not solely responsible for providing all the monetary relief to victims around the globe. Further, not all U.S. citizens are capable of donating. Regardless, this relief estimation per victim suggests insufficient funding for timely recovery.

In light of this problem, this study intends to research the antecedents to disaster aid. Because the media is a prominent resource for disaster information dissemination, this study focuses on how disaster news coverage affects the generation of empathy, compassion and helping behaviors.

Patterns in Disaster Coverage

A provocative question surrounding empathy, compassion, and the media is whether news producers or news consumers become disinterested or uncompassionate first. If news producers (e.g., journalists) become less compassionate during disaster reporting and begin to fade out coverage, an agenda-setting phenomenon may occur (for a review, see McCombs & Shaw, 1972). Yet, if news consumers are indicating that they are no longer interested in, or capable of, exhibiting compassion for disaster victims, news producers may be following suit to ensure continued readership. Thus, it is first necessary to explain current disaster coverage patterns.

News Growth Models

When a disaster occurs (be it natural, technological, or human-caused), the period following the event becomes a crucial time to solicit empathy, compassion, donations, and volunteer work. This is most often attempted with the help of the media. Newspapers, websites, blogs, and broadcasts all contribute to the disaster coverage and information dissemination process. However, the amount of attention allotted to a particular disaster will vary.

Fink (1986) suggested that disaster lifecycles can be characterized by a four-stage model. Beginning with the warning ("prodromal") stage, disasters then move into the acute, chronic, and resolution stages. Using this model, Fink compared a disaster to an illness, in that both are a "fluid, unstable, dynamic situation" (p. 20). Moreover, this suggested disaster lifecycle predicts news coverage that follows the normal distribution curve (Wei, Zhao, & Liang, 2009). In other words, news coverage will slowly increase during the prodromal stage until it reaches a vertex. Then, news coverage will slowly decrease until it disappears entirely. However, Wei, Zhao, and Liang (2009) suggest that there are three models that can be used to represent disaster coverage.

Determinants include the disaster type and severity, newsworthy material, daily news pressure, and the economic development of the affected areas. Based on these factors, disaster coverage will follow the Normal Model (Figure 1), the Damped Exponential Model (Figure 2), or the Fluctuating Model (Figure 3).
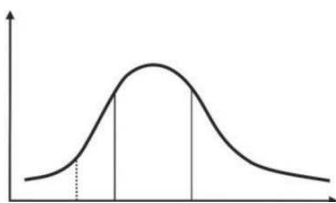
Figure 1: Normal Model   Figure 2: Damped Exponential   Figure 3: Fluctuating Model
(Figures retrieved from Wei, Zhao, & Liang, 2009)
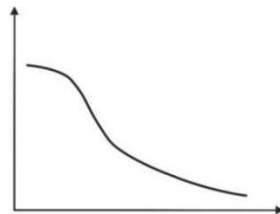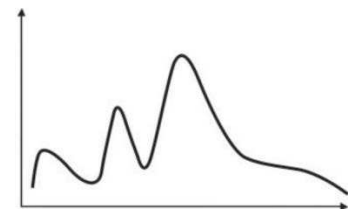
Wei, Zhao, and Liang's study reviewed 112 disasters in China from 2003 to 2008 to determine news coverage patterns, or "growth models." The content analysis found that 43% of the disasters fit the Normal Model, 29% fit the Damped Exponential Model, and 28% fit the Fluctuating Model. In addition to these findings, Wei et al. also characterized the most common situations for each model. The disasters most likely to exhibit a normal curve were often human-caused crises with a slow onset (or prodromal stage), high newsworthiness, and greater daily news pressure. Wei et al. list mine explosions and fires as common disasters receiving normal curve coverage. Disasters following the Damped Exponential Model were more likely to be natural or sudden disasters that affected a smaller number of areas with higher GDP per capita. Common disasters following this model include earthquakes, transportation crises, and structural collapses. Because of the unpredictable nature of these disasters, there is no prodromal stage. Additionally, because the disaster scene is smaller and offers many resources, news agencies do not need to expend too many resources to uncover the details. Lastly, disasters exhibiting the Fluctuating Model are more likely to be in areas with higher GDP per capita and have long, gradual onsets. These disasters also have higher newsworthiness, lower maximum of daily news

4

pressure, and more fatalities. Disasters that follow this model typically include droughts, floods, and epidemics. Because of the longevity of these crises, there are ample opportunities to report new or updated information on the disasters.

Wei et al.'s study concluded with several implications about how these models may mediate news consumers' empathy or compassion for disaster victims. For example, they suggest that the Damped Exponential Model may result in information overload because of the high number of stories within a brief time period. This could potentially result in a "loss or delay of relevant information reaching the appropriate group members" (p. 1749). Within the Normal Model, they suggest that too much information dissemination during the prodromal phase may leave the public tired of the topic before the event reaches its vertex. Based on these implications, Wei et al. assert that the Fluctuating Model has the most potential to prompt decision makers to "implement stronger disaster relief measures" (p. 1750). This is likely due to the varying levels of ongoing coverage throughout the disaster impact and recovery phases. This model could help readers avoid oversaturation while providing enough coverage to maintain their attention of the event. The current study's time frame, however, does not accommodate the longitudinal study needed to assess the validity of this suggestion. Yet, practical application for improving the audience's response to the Damped Exponential Model will be analyzed.

Although a frequency analysis of news stories is helpful, it is also necessary to consider the type of stories journalists cover in disaster reporting.

Reporting Stages

Fearn-Banks (2011) has divided news media crisis reporting into four general stages (p. 35). Stage 1 involves shocking or dramatic breaking news of a disaster. This stage is characterized by substantial missing or inaccurate information regarding the details of the event.

Fearn-Banks suggests that this stage concludes when concrete causes and explanations are presented. She also asserts that Stage 1 often lasts longer during natural disasters as opposed to man-made disasters. Stage 2 commences when the specific details of the victims become available. During this stage, journalists will begin to report stories of survival and heroism. If the event was an act of terror, reporters will begin to discuss the personality of the suspect(s). Stage 3 begins as journalists analyze the crisis and its aftermath. Stories during this phase may include more in-depth probes into how and why the event happened. Journalists may also provide information about memorials for the victims. The last stage involves an evaluative critique of the event. Common frames during Stage 4 include missed warning signs, lessons learned, and returns to normalcy. Stage 4 is perhaps the longest phase, and may include anniversary coverage (one-year, five-year, 10-year, 20-year, etc.). During each of these stages, journalists employ various framing techniques to inform readers and maintain their attention.

Because the current study investigates newswriting practices during an event following the Damped Exponential Model, the two reporting stages of interest include Stage 1 and 2. By comparing the effectiveness of articles from both reporting stages in generating helping behaviors, this study can provide practical reporting best practices for charitable disaster relief organizations. If the stories reported during Stage 1 generate greater donations, it would be recommended that organizations draw out this stage. However, if the human interest stories included in Stage 2 provide greater helping behavior incentives, then it would be recommended that organizations immediately focus on finding stories of those affected by the disaster. The collection period for donations following a disaster is short compared to the duration of the recovery (Peek, 2012). Thus, any practical techniques that can increase recovery efforts will aid in community resiliency.

The present study explores the impact of newswriting formats on helping behavior. More specifically, this study investigates how a Stage 1, hard news story and a Stage 2, soft news story affect a reader's ability to generate empathy and compassion and engage in helping behaviors.

Chapter 2 reviews the literature on helping behavior antecedents. Then, empathy and related predispositions (emotional contagion and the principle of care) are addressed. Each concept is explicated for its parsimonious definition, and then evaluated for its most ideal operationalization. The next section addresses compassion. Specifically, the purpose of this section is to determine how compassion is generated or inhibited, and how it relates to empathy and helping behaviors. Finally, newswriting formats are evaluated for guiding ideologies, required structures, and likely effects. This section concludes with experimental hypotheses and research questions.

CHAPTER TWO: CONCEPT EXPLICATIONS

Helping Behaviors

Many people are capable of proceeding to helping behaviors. This is demonstrated by giving examples such as the $316 billion donated by Americans in 2012 (National Philanthropic Trust, 2013). However, previous studies have indicated different giving patterns among various demographic categories. Specifically, this study addresses variations in terms of gender and age.

Gender and Helping Behaviors

Several studies have found that women are considered more likely to give throughout the year, and married males and females are more likely to give than single males or females (Rooney, Mesch, Chin, & Steinberg, 2005). However, when studied separately, females are more likely to give than males in both relationship categories. Rooney et al. found that single females were 11.9% more likely than single males to give, and that these same females gave, on average, $400 more than single males. Mesch's (2010) study had similar findings but noted that never-married males and females gave 40% and 44% more (respectively). This suggests that despite the gender difference, both males and females are fairly likely to give. Mesch also noted that females continue to give more than males, in each income group range. Specifically within the income group of $29,509 or less, females gave, on average, $259 more than males in the same category.

These trends in helping behaviors are consistent when specifically looking at disaster relief giving. Gordon and Mentzel (1990) found a significant relationship between women's sympathy and their willingness to give to a disaster fund. The relationship was found to be insignificant for men.

Age and Helping Behaviors

In addition to gender, studies have also shown that a person's age may impact the likelihood to give. Mesch (2012) found a positive correlation between giving and age, with older generations giving more. When controlling for the average total donation amount, Mesch found that the Baby Boomer generation (born between 1946 and 1964) gave the most, followed by the Silent and Great generations (born before 1946), Generation X (born between 1964 and 1980), and finally the Millennial generation (born after 1980). On average, Mesch found that donations ranged from $557 to $2,613.

Despite seemingly low participation from the Millennial generation, a 2013 report found that 83% of millennials made a financial gift in 2012 (The Millennial Impact, 2013). Additionally, the report found that millennials had different preferences when donating. Millennials indicated that they preferred giving online the most, followed by in-person/at an event, using a smartphone, by mail, through payroll deduction, using a social offer, through text, and lastly, over the phone. The report concluded that millennials are most likely to give when there are options online, and when giving prompts focus on how giving will benefit a specific recipient.

Helping Behavior Motives

Some researchers have questioned whether this helping behavior is driven by altruistic or egoistic motives (Batson, 1991; Hoffman, 1981). One theory, in particular, questions whether individuals are merely helping others for social approval. However, Darley and Latané's (1968) study concluded that people are more likely to help when they are the only witness to an event. Therefore, social approval does not necessarily lend itself as a motive for helping. Interestingly, Darley and Latané suggest that "…arousal of the need for approval leads to a preoccupation with

the self, leaving one less open and spontaneously responsive to the needs of others…" (p. 126).

This suggests one more impediment to empathy and compassion generation (i.e., self-absorption); yet, it also asserts that most helping behavior is driven by altruistic motives.

Figure 4 summarizes the processes involved in moving from empathy to compassion to helping behavior. Similar to components of the information processing theory (see Bruning, Schraw, Norby, & Ronning, 2004, for a review), this process follows the general cognitive development of perception, attention, meaning-making, encoding, and retrieval. Yet, this model substitutes application for encoding and retrieval. The sections that follow elaborate on each process of the helping disaster response process model.

"Empathic Concern"

Empathy	Compassion	Helping
• Perception	• Meaning-making	• Application
• Attention	• Perspective-taking	
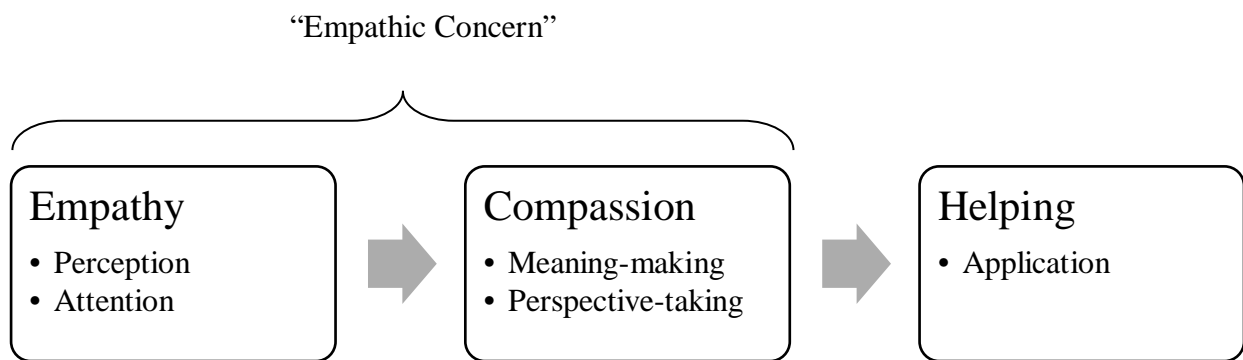
Figure 4: A simplified disaster helping response process model

Empathy

This affective phenomenon includes perception of another person's feelings and requires the perceiver to vicariously experience that affect. What follows is a fuller conceptualization of empathy including what it is, how it is generated, and individual differences in empathy generation. The section concludes by exploring how empathy can be effectively measured.

Conceptualization

The concept has been widely debated, resulting in great variations in what is and what is not empathy. The primary disagreement is whether empathy is a cognitive, role-taking approach

(Dymond, 1949) or a vicarious emotional response (Stotland, 1969). Dymond (1949)

spearheaded the conceptualization of empathy as "the imaginative transposing of oneself into the

thinking, feeling, and acting of another and so structuring the world as he does" (p. 127). The

operationalization of this concept was dependent upon accurately identifying another person's

thoughts, feelings, goals, and etc. Stotland (1969), however, argued that the cognitive and

affective processes residing under the umbrella term *empathy* are too distinct to share the same

label. Stotland, therefore, defined empathy simply as an observer "…reacting emotionally

because he perceives that another is experiencing or is about to experience an emotion" (p. 272).

A greater majority of psychological studies have adopted Dymond's original conceptualization.

Yet, many narrative studies have used Stotland's definition for empathy, considering the

cognitive process as a separate phenomenon (e.g., Cohen, 2001; Tukachinsky, 2014). Therefore,

the current study has adopted Stotland's definition of empathy to apply it in the context of

narrative formatting.

Empathy Generation

The process has been labeled as both an innate quality all people have, and as a learned

ability that only some people have mastered. For instance, Lipps's (1907/1979) theory of

empathy focused on motor mimicry. It posited that using emotional cues, primarily through

facial expressions, individuals will unconsciously mimic the feelings of others. This suggests that

empathy is an innate quality. For example, babies are more likely to cry when they hear another

infant crying (Sagi & Hoffman, 1976); and they are also more likely to smile when they see

someone smiling (Spitz & Wolf, 1946). Adults also show unconscious mimicking tendencies,

such as greater blinking and lip movement around someone who exhibits greater-than-normal

blinking and stuttering (Berger & Hadley, 1975); more laughing around others who are laughing

11

(Provine, 1992); and more yawning around people who are yawning (Cialdini & McPeek, 1974). Hull (1933) found that participants were more likely to exhibit "mimetic movements" upon seeing someone reaching, leaning, or straining. Similarly in narratives, O'Toole and Dubin (1968) found that an audience was more likely to lean forward when viewing an actor desperately attempting to reach something.

Scholars have also explored empathy as a result of an affective predisposition, referred to as *emotional contagion*. Hatfield, Cacioppo, and Rapson (1994) defined this process as "a tendency to automatically mimic and synchronize expressions, vocalizations, posture, and movements with those of another person's and, consequently, to converge emotionally" (p. 215). Therefore, consistent with Stotland's definition, empathy generated by emotional contagion relies less on cognitive deliberation and more on the vicarious experience of another's emotions. Eisenberg et al. (1994) claimed that people who would experience significant emotion in direct, high-intensity settings would also be more likely to experience more emotions in indirect, vicarious situations, as opposed to people with lower emotional dispositions. Doherty (1997) also found a slew of factors that are related to emotional contagion susceptibility. Some characteristics of people who are most susceptible to emotional contagion include:

- More likely to be sensitive and emotionally unstable

- More likely to "respond to others' negative emotional experiences with feelings of warmth, compassion, and concern than with discomfort and anxiety" (p. 142)

- More likely to exhibit emotionality—"the use of affective cues as information" (p. 140)

Other studies consider empathy to be a learned ability. Specifically, through classical conditioning, individuals are presumed to feel empathy for others using prior experience with and understanding of the situation. This could explain how an individual may feel empathy when

12

he perceives that someone is about to experience an emotion or pain. Humphrey (1922) suggested that if an observer noticed that a certain stimulus was consistently paired with an emotional response, he may then mentally link the stimulus and sensation. Then, future exposure to the stimulus would automatically bring up the stored emotional response. Similarly to Pavlov's dogs drooling when a bell rings, people could be conditioned to cringe when observing a seemingly normal event.

Wilhelm and Bekkers (2010) also suggested that the *principle of care* could be a key component for helping behaviors. This refers to the "endorsement of a moral principle that one should help others in need" (p. 11). Wilhelm and Bekkers's study uses the theory of moral development (Hoffman, 2000) and stage theory of prosocial reasoning (Eisenberg, 1982, 1986) to link dispositional empathy with the principle of care. In both Hoffman's and Eisenberg's theories, moral development is categorized in incremental stages, progressing to maturity over time. Moral maturity then results in an "internalized responsibility, duty, or need to uphold the laws and accepted norms or values…" (Eisenberg, 1982, p. 233). In their study, Wilhelm and Bekkers found significant evidence that care mediates short-term and long-term, empathy-driven helping behaviors. They concluded that 75% of spontaneous short-term empathy-driven helping behaviors (e.g., returning someone's change, letting someone cut in line, offering up a seat, etc.) were mediated by care. Additionally, all planned, long-term empathy-driven helping behaviors (e.g., giving to/or volunteering with a charity, donating blood, etc.) were mediated by care.

Regardless of whether empathy is innate or learned, neurological research has found consistent evidence of its existence. Goubert et al. (2005) suggested that empathy follows a "mirror neuron/circuit system" (p. 286). This implies that neurons that are activated for someone in pain may be "mirrored," or activated, for the observer. Botvinick et al. (2005) found support

13

for this phenomenon, using functional magnetic resonance imaging (fMRI). However, Singer et al. (2004) clarified that only some neurons will be mirrored in the observer. More specifically, only the affective components of the pain network were activated, while the sensory components remained inactive. Loggia, Mogil, and Bushnell (2008) explained that "…exposure to somebody in pain elicits increased activity in the anterior cingulate and fronto-insular cortices, structures which are thought to encode the affective component of pain" (p. 168-169). Therefore, empathy can be summarized as a vicarious, unconscious response to someone else's affective reaction, which may be innate or learned, and is limited to affective, but not sensory, components.

Individual Differences

Although studies have shown evidence of empathic phenomena, the levels of empathy a person may experience are a result of several variables (known and unknown). An additional factor in narrative-induced helping behavior is prior direct or indirect experience. Keen (2006) suggested that some readers may experience situational empathy. In other words, a reader may respond empathetically to an episode in a plot because it triggered a stored emotional experience he had. Therefore, empathy generation may vary depending on a person's range of prior direct or indirect experiences. Several studies have also shown that gender differences contribute to empathy generation. Specifically, females have been shown to generate significantly more empathy, especially when using a self-report questionnaire (Eisenberg & Lennon, 1983; Mehrabian et al., 1988; Rueckert & Naybar, 2008).

Operationalization Methods

Various measurement techniques have been used to study empathy in a range of fields, including physiological tests (e.g., heart rate, skin conductance, and facial reactions), neurological tests (fMRI brain scans), and self-report surveys. Within narrative-based studies,

self-report studies are the most common type of measurement. Depending on the conceptualization used for empathy, scholars have most commonly used the Sherman-Stotland scale (Stotland, 1978), the Balanced Emotional Empathy Scale (BEES; Mehrabian, 1997), the Interpersonal Reactivity Index (Davis, 1983), the Measure of Empathic Tendency (Mehrabian & Epstein, 1972), and the Emotional Contagion Scale (Doherty, 1997). This study uses a few scales to measure empathy generation, emotional contagion, and the extent to which the principle of care has been internalized. By recording the reader's reported emotions after exposure to the stimulus, an empathy measurement can be collected. To account for any innate or learned affective predispositions, the emotional contagion scale (Doherty, 1997) and Wilhelm and Bekkers's (2010) principle of care assessment should be administered prior to stimuli exposure.

The next section reviews the role of compassion in helping behavior.

Compassion

This phenomenon includes a cognitive meaning-making process—driven by empathic distress—that may motivate helping behavior. What follows is a further conceptualization of compassion including what it is and how it is generated and inhibited.

Conceptualization

Within social psychology, studies have been conducted to determine if compassion is a combination of emotions or its own state. To simplify commonly defined components of compassion, Goetz, Keltner, and Simon-Thomas (2010) completed a meta-analysis of contributing factors. The study analyzed whether compassion is a) a form of empathic distress generated by vicariously experiencing other people's emotions, b) a combination of sadness and love, or c) a "distinct state" that guides altruistic behavior toward others. Their comparisons of compassion and other similar emotions led to variations in appraisal processes, differing facial

and postural behaviors, distinct touch and voice communications, and dissimilar autonomic nervous system correlates. Thus, they concluded that "compassion is a distinct state that differs from related states, like love, and that this state motivates specific patterns of behavior toward others in need" (p. 354). However, this conclusion of distinctness does not necessarily write off a relationship between compassion and empathic distress. Despite being conceptually different from sadness, love, and pity, many researchers maintain that compassion can result from vicariously experiencing another's pain (e.g., Goubert et al., 2005; Loggia, Mogil, & Bushnell, 2008).

Compassion Inhibition

When an individual fosters enough compassion, it has the potential to serve as a motivator for helping behavior, such as volunteering and donating to disaster victims (Goetz, Keltner, & Simon-Thomas, 2010). However, many empathizers fail to generate sufficient levels of compassion due to compassion collapse.

Compassion collapse. Many people may undergo what is referred to as a *collapse of compassion*. Cameron and Payne (2011) describe this phenomenon as "diminished affective sensitivity toward groups of people in need of help" (p. 2). More specifically, this instance refers to a decrease in compassion as the number of victims needing help increases. Collapsed compassion can occur almost immediately (Cameron & Payne, 2011), whereas compassion fatigue (an incremental decrease in the ability to remain compassionate) will vary more substantially. Two of the most contended explanations for this phenomenon are affective triggering and motivated emotion regulation.

Researchers who have settled on affective triggering as the explanation for compassion collapse rest their argument on varying perceptions of individuals and groups. Hamilton and

16

Sherman (1996) posit that people naturally pay more attention to individuals because they are perceived as more concrete targets than groups. They explain that "perceivers expect less entitativity—less unity, consistency, organization, and coherence—in group targets than they do in individual targets" (p. 351). In addition to attention, individuals may also receive more elaborative processing, perspective taking, and affect (Hamilton, Sherman, & Maddox, 1999; Kogut & Ritov, 2005; Sherman, Beike, & Ryalls, 1999). Consequently, the affective triggering explanation suggests that as the number of victims increases, the original affect that was triggered by the suffering of an individual will diminish.

The alternative explanation for compassion collapse involves conscious emotion regulation. Whereas affective triggering is generally associated with heuristic, automatic processing (Chaiken & Trope, 1999), emotion regulation assumes conscious, systematic processing. Compassion can be viewed in relation to a cost-reward model of helping behavior. The specific costs and rewards an individual encounters are related to empathic distress. Batson (1991) explains that an individual will experience empathic distress simultaneously with compassion in response to someone's suffering. This type of "aversive physiological arousal" motivates the individual to reduce the distress in a way that is least costly to him (Cameron & Payne, 2011). If an individual is capable of providing the necessary resources (time, money, etc.) to aid the victim, he will alleviate the empathic distress with little to no cost to himself. However, if the individual does not have the proper resources to aid the victim, he may resort to other means to reduce negative arousal. Cameron and Payne describe alternative mechanisms as diffusion of responsibility, situation reassessment, and situation escape or avoidance. The emotion regulation explanation of compassion collapse, therefore, assumes that an individual will consciously downgrade his emotions when there is a greater perception of empathic distress

from increased victims. In other words, the cost associated with helping more victims is considered too high, resulting in the individual purposely lowering his concern for the victims to cope with the situation.

Cameron and Payne's study used three separate experiments to determine whether affective triggering or emotion regulation resulted in compassion collapse. The results of the experiments provided significant evidence to support the following claims: 1) helping eight victims is more costly than helping one victim; 2) skilled emotion regulators proactively reduced the amount of compassion felt toward eight victims, but not toward one victim; and 3) those who show more emotion regulation demonstrate less overall emotion intensity. These findings have great implications for compassion following major disasters. Cameron and Payne suggest that skilled emotion regulators may purposely numb themselves to the pain that may come with witnessing mass suffering. But because they cannot pinpoint the exact emotions they want to defuse, they will incidentally reduce all other emotions as well (cf. Loggia et al.'s [2008] findings of increased sensitivity during empathic distress). Therefore, individuals who can successfully regulate their emotions may be less likely to partake in altruistic activity to aid disaster victims. This conversely implies that individuals who unsuccessfully regulate, or deregulate, their emotions are more likely to aid during major disasters. This supports Doherty's emotional contagion theory, which suggests that people with greater emotional instability are also more likely to generate more empathy and compassion for others experiencing emotional distress. Batson, Eklund, Chermok, Hoyt, and Ortiz (2007) came to a similar conclusion when instructing participants to review a sad story objectively or by imagining the author's feelings. The study found that the objective participants were less empathetic toward the victim. Conversely, the participants who imagined what the victim must be feeling reported greater

empathy for the victim. The next section explores how these psychological theories can be applied to real-world disaster relief communication strategies.

Newswriting Formats

Although theories and psychological premises have helped to broaden the current understanding of human minds and behavior, they may fall short when applied to real-world situations. Therefore, this section discusses how different narrative formatting can be mimicked, and then measured to determine possible relationships with helping behaviors. First newswriting ideology is explored, followed by specific story formats used in Stage 1 and Stage 2 of disaster reporting.

Reporting Content

News articles can generally be categorized as hard or soft stories (Fischer, 1998). Hard news stories provide the basic, objective facts of an event including the who, what, when, where, why, and how information. Soft news stories generally rely more on personal accounts of the event and "human interest" narratives (p. 39). Fischer explained that the primary difference between the two types of reporting is where the emphasis lies. He suggested that "As soon as the reporter ventures into the personal experiences of those who were there, the *news* story becomes more [of] a news *story*" (1998, p. 39). Regardless of the emphasis on hard or soft formats, Eugene Roberts (former editor at *The New York Times* and *The Philadelphia Inquirer*) claimed that "the best reporters, whatever their backgrounds or their personalities, share that consummate drive to get to the center of a story and then put the reader on the scene" (Rich, 2010, p. 37). While working for an editor who was blind, Roberts was constantly challenged to write so vividly that anyone, even a blind man, could see the scene he had laid out. Therefore, Roberts claimed that it is the role of the journalist to "Identify the center of the story…gather information

to make the reader see, and write a compelling story to make the reader care" (as cited in Rich, 2010, p. 37).

Objective reporting. According to Bourdieu (1998), the field of journalism emerged in the nineteenth century as a battle between differing perceptions of how stories ought to be reported. Journalists who touted objectivity believed that the most legitimate news sources should be authoritative, balanced, and detached (Tester, 2001, p. 24). Former BBC war correspondent, Martin Bell, was a strong proponent of this type of reporting during the mid-1990s. In his words, he explained "[I was] brought up in the old and honourable [sic] tradition of balanced, dispassionate, objective journalism…I would move from war zone to war zone without being greatly affected by any of them" (Bell, 1996). Although this suggests indifference toward suffering, Tester (2001) clarified that this should be considered as an intentional suppression of emotions to remain accurate and fair.

Within this form of journalism, Tester highlighted the importance of fully comprehending the psychological complexity required of these reporters. He suggested that nonbiased journalists must encounter an ongoing struggle between "objectivity and human attachment" (p. 25). Because detachment must win out, these reporters are often referred to as "bystander journalists," who merely report the scene from the sidelines, without getting involved (Bell, 1996). Janine di Giovanni, a foreign correspondent who covered the war in the Balkans, recounted witnessing several journalists and photographers embracing this bystander role. However, she maintained that it is not proactive emotion regulation, but a combination of limited compassion and information overload. Psychologist Dorothy Rowe explained that after hitting a certain level of suffering (in terms of empathic distress), an individual will simply "shut off" (di Giovanni, 1994). Therefore, di Giovanni labeled detachment as a vocational defense mechanism.

This implies that the objective journalists' affective and cognitive limitations may influence

disaster coverage and affect the reader's empathy or compassion generation. Yet, as previously

mentioned, the field of journalism is divided in its perception of how stories ought to be reported.

Attached reporting. In contrast to objective reporting, the journalism of attachment

seeks to report the facts in a compassionate manner. Bell (1996) referred to it as "a journalism

that knows as well as cares." Although BBC's Martin Bell was trained in the ways of objective

journalism, his war correspondence experience led him to question the benefits of such reporting.

Tester explained that other journalists have been plagued by the same doubt:

> Many journalists have also argued that they have become inured to the sight of suffering, misery or devastation, and many of them wonder if there is some connection between their own sense of apathy and what they take to be the indifference of their readers and viewers. (2001, p. 14)

This presumed effect on readers has led several journalists to demonstrate their attachment to

their stories—most notably through human interest framing and personal accounts.

Despite the benefits this type of reporting could have for a reader's empathy and

compassion generation, many journalists have labeled it as a form of sensationalism, reserved for

the editorial pages (Culf, 1996). Sensationalistic reporting focuses on "those things which are apt

to arouse curiosity but require no analysis, especially in the political sphere" (Bourdieu, 1998, p.

51). Additionally, Bourdieu suggested that this type of journalism places high importance on

market forces. Therefore, sensationalist journalists are more likely to supply the content and

framing that the market (e.g., news consumers) demands. If there is a greater demand for

compassionate journalism, Tester claimed that the vocational defense mechanism of objectivity

will be substituted with compassionate accounts. Thus, journalists become more susceptible to

the information and compassion overload, described by di Giovanni. Although journalistic

psychological processes likely determine the content and framing of the story, several technical components could also play a role in empathy and compassion generation.

Story Organization

Regardless of the type of reporting style or news story, all journalists go through a similar story-building process. Rich (2010) argued that finding the *focus* of the story is one of the most challenging and crucial steps. The focus is the main point of the story and its potential impact on readers. Media scholars would most likely call this step the *framing* process. (For a review of framing theory, see Goffman, 1974.) The most commonly used questions to determine a story's focus are who, what, when, where, why, and how. In addition to these, Rich suggested that a key question to ask is "so what?" In other words, what will a reader gain from this story? What call to action does this story prompt? This can be considered as the potential helping behavior prompt of journalistic narratives. Once the journalist has narrowed in on the main point of the story, he must determine which journalistic elements to use and how to arrange them. The umbrella terms for these elements include the lead, body, and ending. Within each umbrella term, journalists have multiple tools at their disposal to craft the story. The following sections briefly define the umbrella terms. Then, the most relevant variations in story format and arrangement are discussed.

Story elements. Following the headline, most stories will begin with a *lead*, or "the hook that tells the reader what the story is about" (Rich, 2010, p. 38). The idea is to create a lead that will prompt the reader to view the rest of the article. The most common types of leads are summary leads and feature leads. As indicated by its name, the summary lead gives the reader a concise overview of the main points of the story. This type of lead is often used in hard news stories due to its straightforward appeal. Typically, a summary lead will consist of 35 words or

fewer (p. 39). The soft feature lead, also referred to as an anecdotal lead, seeks to draw the reader into the article by describing the main person, place, or event of the story. Yet, this type of lead selectively highlights parts of the story, while leaving out other key facts. Therefore, an additional paragraph (called the *nut graph*) will follow the feature lead. This paragraph should briefly introduce the remaining key points of the story in a "nutshell summary" (p. 37). Once the focus of the story has been briefly mapped out, the journalist may move into various elements within the body of the story.

The middle of the story should provide all the necessary information to help the reader create the situation model, including backup information that supports the statements made in the lead (and optional nut graph). This is often achieved through quotes, context/background, and elaboration. Depending on the story, quotes can be from witnesses, stakeholders, government officials, company representatives, subject matter experts, and etc. Rich (2010) advised that quotes should only be used if they are interesting, informative, memorable, or if they advance the story. Conversely, quotes should not be used if they explain indisputable facts, are boring, unclearly worded, accusatory, or simply unrelated to the topic. Columnist and writing coach, Susan Ager, argued that quotes should be considered as "spice," not the "meat and potatoes" of the article (p. 50). Therefore, they should be used strategically in places where a summary would be insufficient. In addition to quotes, background provides additional information that may help the reader understand the importance of the topic. This may include historical information on a topic, scientific explanations, or similar ideas that help to explain the topic. Lastly, elaboration on the topic often involves presenting differing points of view on the topic. For example, while reporting on a political topic, the reporter may explain how major political parties view the issue.

Once all relevant information has been explained, the article will conclude with an appropriate ending. Common options include quote kickers, factual kickers, circle kickers, future-action kickers, climaxes, and out-of-gas kickers. Quote kickers end the story using a quote that comprehensively summarizes the mood and key concepts of the story. Factual kickers serve the same purpose as quote kickers, but rely on a strong summary statement from the reporter. Circle kickers bring the reader back to the main point mentioned in the lead of the article. Future-action kickers briefly highlight the next steps that are required for the topic discussed in the article. Climax endings are typically used in more narrative-based articles and provide the most important or interesting statement at the end of the article. This is reserved for special feature stories. Lastly, out-of-gas kickers are used when the information tank is empty. Rich explained that this ending is often used in hard news stories, in which key points are presented in descending order, making the very last sentence the least important bit of information.

Relevant story formats. As hinted at throughout the description of story elements, the type of story a journalist intends to write will determine which elements are used and in what order. There is no set of official journalism guidelines that states what structure must be used for each type of story. However, some structures are more ideal than others. Included, herein, is a brief overview of the story formats most commonly used for hard stories and soft stories in their respective disaster reporting stages.

The inverted pyramid. Known as one of the most commonly used story formats for breaking print and online news articles, the inverted pyramid presents the most important information first, followed by less important supporting information. The primary questions used to prioritize information are: What information will affect the reader the most? Which questions must be immediately addressed? And which quotes are the strongest?

The primary advantage of this format is that readers quickly receive the essential information of the article. Yet, the most apparent disadvantage is also a result of this rapid access to main points. After the reader views the lead, he may not want (or need) to read the rest of the article. Additionally, the out-of-gas ending may leave readers unaffected by the article or indifferent about the topic. (See Figure 5 for the inverted pyramid's structural breakdown.)
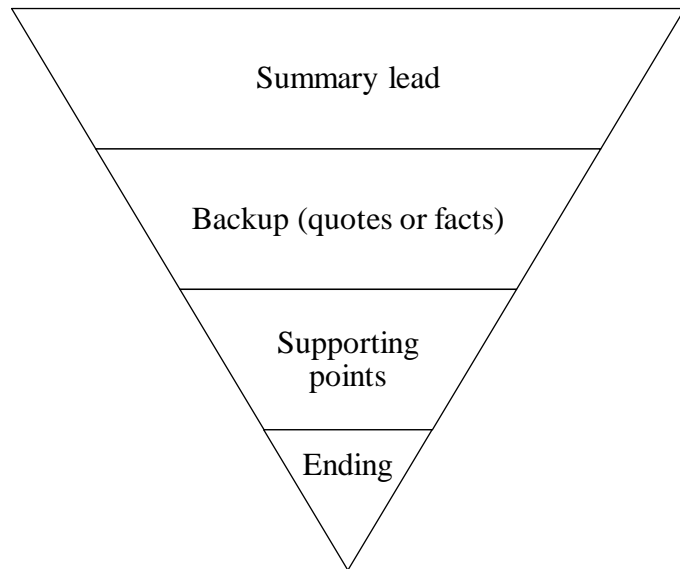
(Modified from Rich, 2010, p. 183)

Figure 5: The inverted pyramid

Because this type of story format is often used for important, breaking news, it is ideal for Stage 1, hard news disaster reporting. Readers are able to review the fast facts, such as death counts, economic damage, missing persons, and other facts about the event. As such, this type of story may rely on statistics and relevant numbers to describe an event. Therefore, the inverted pyramid format may be more likely to collapse compassion. Stage 1 disaster reporting is also limited in terms of the actual details; therefore, this story format is often short, only relaying the bare essentials that the reader needs to know. This limited description of specific victims may inhibit the empathy generation needed to even generate enough compassion to induce helping behaviors. This study, therefore, uses this hard news story format to determine its effect on empathy and compassion generation, as well as helping behavior responses.

The hourglass structure. Although similar to the inverted pyramid, the hourglass structure is ideal for highlighting a specific disaster victim's story. The most important

information is first presented using a summary lead, and then briefly supported by quotes, or background statements. The remainder of the article is then used to walk the reader through the details of the victim's experience, from start to finish (see Figure 6). Rich (2010) stated that it is necessary to set up the chronological storytelling with an overview attribution (e.g., "John Smith gave the following account"), and then later remind the reader that this story is being told from a witness's perspective.

(Modified from Rich, 2010, p. 189)

Figure 6: The hourglass structure

The most notable advantage of this format is that it tells a story with an identifiable protagonist. Narrowing in on one person may limit the likelihood of compassion collapse. This format also incorporates an element of narrative drama, which may offer more opportunities for readers to perceive cues needed to generate empathy and compassion. However, Rich claimed that a likely disadvantage of this format is that some information will probably be repeated in the information half and the storytelling half of the article. The present study uses this soft news story format to determine its effect on empathy and compassion generation, as well as helping behavior responses.

Hypotheses and Research Questions

The literature review has provided clues as to what content and news framing will generate the most empathy, compassion, and helping behaviors. Because the research has indicated that perspective-taking increases compassion, it may be more helpful to report soft

news stories, using narrative elements to focus on one or two victims. This type of content could be beneficial for several reasons. First, using a soft news story (as opposed to a hard story) provides more empathic cues necessary for the reader to recognize the victim's suffering. Second, avoiding sole reliance on gross statistics of destruction, injuries, and death may prevent compassion collapse (driven by depreciation in empathic self-efficacy). Compassion collapse may also be avoided by focusing on one victim from the disaster, rather than a group of victims. And third, using a narrative may help readers to imagine what it would be like to be in the victim's situation. It should be noted that the present study is limited to measuring participants' behavioral intents. Thus, *helping behaviors* is operationalized as *helping behavior intent*.

Therefore, the following hypotheses are proposed:

H1: The soft, Stage 2 disaster news story will generate more empathy than the hard, Stage 1 disaster news story.

H2: The soft, Stage 2 disaster news story will generate more compassion than the hard, Stage 1 disaster news story.

H3: The soft, Stage 2 disaster news story will generate greater helping behavior intent than the hard, Stage 1 disaster news story.

Based on Wilhelm and Bekkers's (2010) research, it is also expected that the principle of care will play a prominent role in participants' helping behavior intent. Therefore the following is also hypothesized:

H4: Participants who indicate greater internalization of the principle of care will demonstrate more helping behavior intent than participants who indicate lower internalization, regardless of the news story.

Lastly, the following research questions are also explored to account for the possible mediating role that emotional contagion and gender differences may play in empathy generation and helping behavior intent:

RQ1: Will participants who score higher on an emotional contagion scale be more empathetic while reading either news story?

RQ2: Will higher scores on an emotional contagion scale be linked to greater helping behavior intent after reading either news story?

RQ3: Will gender serve as a moderating variable between news story type and helping behavior intent?

RQ4: Will gender serve as a moderating variable between news story type and empathy generation?

The next chapter explains operationalization methodology used to test the hypotheses and research questions.

CHAPTER THREE: RESEARCH METHODOLOGY

Research Design

This study incorporated an experimental design with random assignment to one of two groups. The *Stage 1, hard news story group* received a post-disaster story that used the inverted pyramid format. The *Stage 2, soft news story group* received a post-disaster story that used the hourglass format. The main independent variable in this study was narrative format. Emotional contagion, internalization of the principle of care, and gender differences served as moderators. Dependent variables were empathy generation, compassion generation, and helping behavior intent. The experiment used a straightforward manipulation and questionnaires to measure the dependent variables.

Further, the study used a post-test only design with no control group, but random assignment between two comparison groups. The control group was deemed unnecessary because the causal chain is dependent on the narrative formats. A control group would not receive a story, which defeats the purpose of the measurement. A pre-test was also deemed inappropriate because of its potential to prime the participants and introduce confounding variables, such as testing effect or demand characteristics.

Participants

A total of 412 undergraduate students were recruited from eight classes at Colorado State University. The actual number of participants included in the study was 220 college students (63% response rate), with 89 males and 131 females[1]. Forty-five males were randomly assigned to the Stage 1, hard news story condition while 44 males were assigned to the Stage 2, soft news

---

[1] A chi square analysis found that females were significantly more likely to score higher on emotional contagion than males (X^2 (1, $N = 220$) = 25.26, $p < 0.05$). Conversely, there were no significant differences between gender in terms of internalization of the principle of care (X^2 (1, $N = 220$) = 0.53, $p > 0.05$).

story condition. Sixty-five and 66 females were randomly assigned to the Stage 1, hard news story and Stage 2, soft news story conditions, respectively. The final power analysis for the study found that when alpha = 0.05 and $N = 220$, power = 0.95.

Sample Size and Power Analysis

A software power analysis program (G*Power) and effect sizes from similar studies was used to determine the power analysis and the appropriate number of participants per group. Effect sizes were retrieved from Eisenberg and Miller's (1987) meta-analysis, which included a review of several studies that manipulated prosocial behaviors, empathy, and sympathy (which is defined similarly to how the present study defines *compassion*). Effect sizes were compiled from studies that specifically used self-report questionnaires, college-aged participants, and charitable donation manipulations. The average effect size for these studies was considered medium to large (Hunt, n.d.). Therefore, when alpha = 0.05 and power = 0.80, the projected sample size needed with this effect size was approximately $N = 150$. Therefore, each experimental group needed at least 75 participants.

<div align="center">

Research Procedure

</div>

Undergraduate students ($N = 220$), enrolled at CSU's Fort Collins campus in eight advanced writing courses that cater to all academic disciplines, were offered an extra credit opportunity to participate in the study. They were directed to a link on Qualtrics. Participants viewed a cover page screen with the basic information about the study. This included suggestions for completing the experiment, such as how much time participants should set aside to complete the survey. The screen also provided information about informed consent and ensured confidentiality. Participants were required to indicate their informed consent before proceeding with the study.

On the next screen, participants self-reported demographic information including gender, age range, and ethnicity. Emotional contagion dispositions were then measured using Doherty's (1997) emotional contagion scale, as well as internalization of the principle of care, using Wilhelm and Bekkers's (2010) assessment.

The next screen included a brief paragraph that very plainly told the participant what he/she will read. The Stage 1, hard news story group was instructed to read an inverted pyramid style news story, from the *New York Times*. The Stage 2, soft news story group was instructed to read an hourglass style news story, also from the *New York Times*. The participant was then instructed to proceed to the next screen to view the randomly assigned stimulus. (Copies of the stimuli are included in Appendix B.)

After the participants finished reading the assigned news story, they were offered an opportunity to help victims of the disaster. Then, they were directed to the questionnaire that measured empathy and compassion generation achieved in each group, and recorded prior disaster experience and testing environment information. Participants navigated through no more than 8 screens to complete the questionnaire. (A copy of the questionnaire is included in Appendix A.)

Finally, the participants were directed to a debriefing screen that disclosed the full intent of the study and inquired whether they would like to submit or omit their responses.

Stimuli

As previously mentioned, the experiment used two stimuli to measure differences in empathy generation, compassion generation, and helping behavior intent. Both stimuli consisted of the same information in terms of the fictional disaster and news source. The information contained in the Stage 1, hard news story was replicated in the Stage 2, soft news story.

However, the Stage 2, soft news story also provided a brief anecdote of an individual's experience during the disaster. Both stimuli are included in Appendix B.

Natural Disaster and Setting

Direct experience with an event is likely to prime a participant to view a similar event differently than participants without prior experience. Yet, removing all familiarity (personal relevance) from the event is also likely to prime a participant to view the event differently than participants with some familiarity. Therefore, the disaster and setting were strategically chosen. The fictional event and setting were selected based on demographics of the CSU population and disaster frequencies by location.

Disaster frequency. Within the U.S., the most common natural disasters include floods, earthquakes, fires, hurricanes, tornadoes, volcanoes, tsunamis, landslides and debris flow, and extreme heat or cold (Extension Disaster Education Network, 2012). To determine the ideal type of fictional disaster to use in the stimuli, the top six most common states CSU students are from (Colorado, California, Texas, Illinois, New Mexico, and Arizona) were evaluated. CSU students come from many locations outside of Colorado; however, these top five non-resident states cover nearly half (44%) of the total non-resident population (Institutional Research, 2013).

In terms of disaster type, the current study focused on disasters that are more likely to follow the Damped Exponential Model (Wei, Zhao, & Liang, 2009). Disasters following this model are often sudden, with little-to-no warning. This decreased the likelihood of immediate recreancy and/or victim-blaming from participants within the study and increased likely empathy and compassion generation for the disaster victims. This model, therefore, limited natural disaster types to earthquakes, tornadoes, and tsunamis. Figure 7 shows the frequency of these three disasters in the top five non-resident states and Colorado.
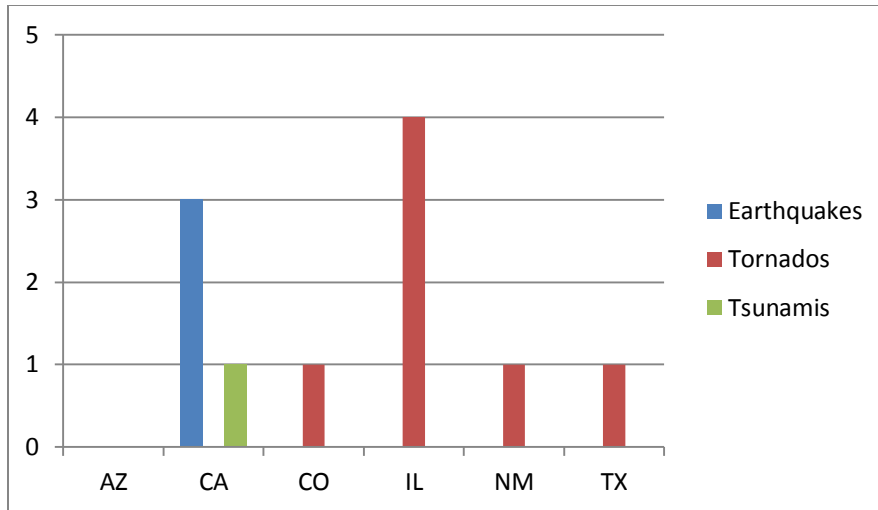
(Data retrieved from FEMA, n.d.)
Figure 7: Frequency of major disaster declarations in the past 10 years (2004-2014) by state and disaster type

Four out of the six states have experienced at least one major tornado in the past 10 years. California is the only state to declare major disasters from an earthquake or tsunami. And, Arizona did not declare any related major disasters in the past 10 years. This data indicated that the most ideal natural disaster for the stimuli, following the Damped Exponential Model, is a tsunami. The major 2011 event that occurred in California was considered a teletsunami, originating in Japan (California Geological Survey, n.d.). Although this suggests a possible confounding variable for California residents, the tsunami resulted in only one fatality and an estimated $54.6 million in damages (California Geological Survey, n.d.). Put in perspective, these damage expenses would account for roughly 0.04% of those accumulated from Hurricane Katrina (The Data Center, 2014). Similarly, the California 2011 tsunami damages would equal roughly 2.7% of the damages accumulated from the 2011 Joplin, MO, tornado (Onstot, 2013). Lastly, the percentage of students from California is roughly 3.4%, further limiting the likelihood that a participant will have had direct experience with a tsunami.

Setting. As previously mentioned, there is a fine line between previous experience and familiar events. Therefore, the setting used for the stimuli used a state that has a greater likelihood of experiencing a tsunami (for believability), but has a lower percentage of CSU students. Although tsunamis are not frequent within the U.S., the most common areas affected are Hawaii, Alaska, California, Oregon, and Washington (National Disaster Education Coalition, 1999). Of these five states, the location with the fewest number of CSU students is Oregon (roughly 0.3% of all students; Institutional Research, 2013).

Prior to conducting the formal experiment, an informal pilot study was completed to test and improve manipulations (disaster reporting stages), dependent variable measurements (questionnaires), and general experimental formatting and accessibility. Quota sampling was used to obtain 12 participants (6 females and 6 males). Three males and three females were randomly assigned to one condition, while the remaining males and females were assigned to the other condition. Participants followed the same process listed in the Research Procedure section. However, in addition to viewing the stimulus and answering the questionnaire, pilot study participants were given the opportunity to provide feedback on the experiment. Participants did not offer any suggestions for improvement. The empathy and emotional contagion scales' reliability were also consistent with prior studies (Cronbach's $\alpha = 0.89$ and 0.74, respectively). Lastly, instances of helping behavior intent was demonstrated, with 33.3% of participants deciding to donate. Therefore, results did not indicate any problems with manipulations, measurements, stimuli, or survey flow.

Measures

Pre-Test Questions

Before completing any measurements, participants were asked to report their demographic information (gender, age, and ethnicity). The demographics measurement was exploratory and sought to account for any possible moderating effects. Slightly more female participants completed the survey (59.5%). The majority of all participants (93.6%) were between 18 and 24 years old, while the remaining 6.4% of participants were between 25 and 34 years old. This confirmed that all participants were considered part of the millennial population (i.e., born between 1981 and 1997). Participants' ethnic demographics were fairly consistent with the overall CSU population; 81.8% of participants reported that they were white, followed by Asian American (6.4%), Hispanic (5.5%), multi-racial (3.6%), black (1.4%), Native American (0.9%), and other (0.5%). Given relatively minor age and ethnicity variation, these two elements were excluded from further analysis. Sufficient sample sizes for gender allowed for further analysis of potential moderating effects.

Prior to viewing the stimulus, participants answered nine questions that measured emotional contagion tendencies (Doherty, 1997). Scores were recorded using a 5-point Likert scale ranging from 1-Never to 5-All the time. Each item measured a person's tendency to "catch" others' emotions and then mimic them. These items were averaged together into an index (Cronbach's $\alpha = 0.80$; $M = 2.98$, $SD = 0.62$). The scale's reliability was consistent with Doherty's (1997) study ($\alpha = 0.79$). The emotional contagion scale was then recoded as a dichotomous variable, split at the mean, which was along a normal distribution.

Three items measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) were also used to measure internalization of the principle of care (Wilhelm & Bekkers, 2010).

Each item measured the participant's agreement with statements endorsing (or diminishing) the principle of care. One item was reverse coded, and the three items were averaged together to create an index (Cronbach's $\alpha = 0.63$; $M = 3.91$, $SD = 0.62$). Although α appears low, it should be noted that the three-item index is unidimensional, with a factor analysis revealing an Eigenvalue of 0.81 for one factor, and factor loadings ranging from 0.38 to 0.58 in another study that used this scale (Wilhelm & Bekkers, 2010, p. 17). Yet for analysis purposes, the item was split at the mean, since results exhibited a normal distribution.

Post-stimulus Measurements

Immediately after reviewing the stimulus, participants were given an opportunity to demonstrate helping behavior intent for disaster victims. Then they were instructed to answer a series of questions about the empathy and compassion generation, as well as details about their testing environments.

Dependent variable measurements. Three primary measurements were used: a helping behavior intent prompt, an empathy index, and a compassion slider scale.

Helping behavior intent prompt. After reading the randomly assigned stimulus, participants received a brief prompt indicating that the local chapter of the American Red Cross had partnered with CSU to collect donations for victims of the disaster (Appendix A). Participants viewed a list of donation amounts ranging from $10 - $50 and were asked what they would be willing to contribute, if anything. Options were limited to monetary gifts due to organizations' preference for financial support rather than item donations (Center for International Disaster Information, n.d.). Analysis of this measurement was intended to describe the level of helping behavior intent people demonstrated following the stimulus. Yet, due to minimal variation among donation amounts, the helping behavior intent measurement was

recoded as a dichotomous variable (0 = no donation, 1 = donation). When donation amounts were combined, 37.3% of participants indicated a willingness to help via donations. The remaining 60% opted out of donating, while 2.7% (6 participants) were omitted from analysis for failure to respond to the prompt.

Empathy index. An emotion recognition scale was used to assess the emotions participants experienced while reading. Specifically, this study utilized a modified version of the Positive and Negative Affect Schedule–Expanded form scale (PANAS-X; Watson & Clark, 1999). The PANAS-X typically measures a variety of basic negative emotions (fear, hostility, guilt, and sadness; Cronbach's α typically ranges from 0.85 to 0.90) and positive emotions (joviality, self-assurance, and attentiveness; Cronbach's α typically ranges from 0.83 to 0.90). Other emotions measured are shyness, fatigue, serenity, and surprise. The current study only used the basic negative emotion scales, excluding the guilt scale. Three adjectives were used to measure each emotion for a total of nine items on a 5-point Likert scale that asked how much the participants felt each emotion while reading the assigned story (1 = very slightly/ not at all; 5 = extremely). The scale's reliability was consistent with Watson and Clark's (1999) study (Cronbach's $\alpha = 0.83$; $M = 2.04$ and $SD = 0.61$).

Given the negative valence used in the news stories, higher reported scores for these negative emotions would indicate that greater empathy was generated. Measurements of empathically generated fear, hostility, and sadness were correlated with the same three emotions measured by the emotional contagion scale. The full item list from the PANAS-X scale is included in Appendix A.

Compassion slider scale. Compassion was measured using a slider scale in Qualtrics. Participants were asked to rank, on a 5-point scale, the level of compassion they felt for the

victims of the disaster, where 1 = little to no compassion and 5 = deep compassion. The empathy assessment intentionally avoided an outright assessment of empathic responses because it is not considered an elaborative process. However, this study explicates compassion as a cognitive meaning-making process, which allows for an outright inquiry of the participant's feelings. The slider scale, therefore, encouraged participants to reflect on their feelings before answering. Participants reported moderate compassion generation ($M = 3.98$, $SD = 0.81$). The slider scale is included in Appendix A.

      Control measurements. Lastly, control measurements were used to account for any other contributing factors that were likely to occur during the experiment. Specifically, these final measurements accounted for variations in testing environments. Because this study was conducted online, the testing environment varied by the participant. Within a lab experiment, researchers may control nearly every aspect of the experiment including lighting, temperature, noise level, technology, distractions, and etc. To account for this variation, the testing environment questionnaire asked participants to indicate what factors may have affected their responses. For example, this section asked where the participant completed the study (at home, work, school, etc.), if other people were in the room, the noise level, and the number of times the participant intentionally stopped or was interrupted. Therefore, the testing environment questions allowed for a better understanding of which participants were focused on the task, distracted, or rushing through the survey. Twenty-six participants were removed from the study because they either took longer than one hour or less than three minutes to complete the survey. Additionally, participants who did not answer all questions were also removed.

Data Analysis

A one-way, between subjects ANOVA was used to test main effects of the news story stimuli on empathy and compassion. A chi-square test examined the relationship between news story and helping behavior intent and principle of care and helping behavior intent. This provided insight on how the dependent variables differed between both groups. A two-way, between subjects ANOVA was also used to test interaction effects between the moderating variables (emotional contagion, the principle of care, and gender) and news story type.

CHAPTER FOUR: RESULTS

The following analysis reviews findings for the four proposed hypotheses and five research questions. The first hypothesis predicted that the Stage 2, soft disaster news story would generate more empathy than the Stage 1, hard disaster news story. The hypothesis was not supported, and the opposite relationship was found for empathy generation—although it was not statistically significant ($F(1, 218) = 0.31$, $p > 0.05$). The Stage 1, hard news condition reported $M = 2.07$, $SD = 0.62$; whereas, the Stage 2, soft news condition reported less empathy generation ($M = 2.02$, $SD = 0.61$).

Similar to the first hypothesis, the second hypothesis predicted that the soft, Stage 2 disaster news story would generate more compassion than the hard, Stage 1 disaster news story. Again, the hypothesis was not supported, and the opposite relationship was found, although it was not statistically significant ($F(1, 218) = 0.126$, $p > 0.05$). Instead of greater compassion generation for the soft news story ($M = 3.96$, $SD = 0.08$), the hard news story garnered a more compassionate response ($M = 4.00$, $SD = 0.08$). However, the effect size was not significant between the two conditions.

No evidence was found to support hypothesis 3, which predicted that the soft, Stage 2 disaster news story would generate more monetary donations than the hard, Stage 1 disaster news story ($X^2(1, N = 214) = 2.85$, $p > 0.05$). However, participants in the hard news story condition were more likely to give (57.3% of participants donated) than participants in the soft news story (42.7% of participants donated).

Results supported the fourth hypothesis, which predicted that greater internalization of the principle of care would be related to the decision to donate, regardless of the news story type.

Participants with high internalization of the principle of care were significantly more likely to donate after reading either news story. Conversely, participants with lower internalization of the principle of care were significantly less likely to donate after reading either news story, $X^2 = (1, N = 214) = 8.15, p < 0.05$. No significant results were found when factoring in each news story type. Yet, participants with lower internalization of the principle of care indicated greater helping behavior intent after reading the hard news story (65.2% donated) compared to the soft news story (34.8% donated; $X^2 (1, N = 214) = 2.48, p > 0.05$). Participants who demonstrated a higher internalization of the principle of care were also slightly more likely to donate after reading the hard news story (54.2% donated) than after reading the soft news story (45.8% donated; $X^2(1, N = 214) = 1.10, p > 0.05$).

In addition to the four hypotheses, this study also sought to investigate several research questions. The first research question asked whether participants with more emotional contagion tendencies would be more empathetic while reading either of the news stories. Participants with higher emotional contagion tendencies were more likely to generate empathy after reading the hard news story ($M = 2.36, SD = 0.62$) than the soft news story ($M = 2.23, SD = 0.65$), although this was not statistically significant ($F(1, 216) = 0.97, p > 0.05$). Conversely, participants with lower emotional contagion tendencies generated more empathy after reading the soft news story ($M = 1.82, SD = 0.49$) compared to the hard news story ($M = 1.80, SD = 0.58$). Overall, the findings suggest that participants with higher emotional contagion tendencies will generate more empathy ($M = 2.30, SD = 0.59$) than participants with lower emotional contagion tendencies ($M = 1.81, SD = 0.53$), regardless of news story type. Results, however, were not statistically significant.

The second research question inquired whether emotional contagion tendencies were related to decisions to donate after reading the news stories. Participants who scored higher on the emotional contagion scale were significantly more likely to give to disaster victims after reading the Stage 1, hard news story (62.5% donated) than the soft news story (37.5% donated; X^2 (1, $N = 214$) = 4.7, p < 0.05). Participants with lower emotional contagion tendencies were slightly more likely to give following the hard news story (52.4% donated) than after reading the soft news story (47.6% donated); however, this was not a significant relationship, X^2 (1, $N = 214$) = 0.59, $p > 0.05$.

The third research question investigated whether gender differences affected participants' giving decisions after reading either news story. Female participants were significantly more likely to give to disaster victims after reading the hard news story (46.9% donated) compared to the soft news story (38.8% donated; X^2 (1, $N = 214$) = 4.00, $p < 0.05$). There was no significant effect for male participants' giving patterns in either news story condition. However, males were slightly more likely to donate after reading the hard news story (51.5% donated) than the soft news story (48.5% donated; X^2 (1, $N = 214$) = 0.05, $p > 0.05$).

The fourth research question looked into gender differences in terms of empathy generation. Female participants were slightly more likely to generate more empathy after reading the hard news story ($M = 2.16$, $SD = 0.62$) than the soft news story ($M = 2.04$, $SD = 0.62$), although the relationship was not significant, $F(1, 216) = 1.09$, $p > 0.05$. Conversely, male participants were slightly more likely to generate empathy following the soft news story ($M = 2.00$, $SD = 0.59$) than the hard news story ($M = 1.94$, $SD = 0.65$). Both of these relationships demonstrated minimal variation and were not significant.

CHAPTER FIVE: DISCUSSION

The current study sought to investigate how two disaster news reporting stages (Stage 1 and 2) with different newswriting formats (hard and soft news) could affect millennials' generation of empathy, compassion, and helping behavior intent. Based on the results, no significant findings can be concluded regarding millennials' empathy, compassion, or helping behavior intent in either disaster reporting stage. However, a couple significant interaction effects among emotional contagion, gender differences, and news formats, along with the principle of care were found. The sections that follow review the expected results, based on prior studies, and discuss possible explanations for why few significant findings were concluded from this study. Additionally, a review of how this study can be used to provide best practices for disaster relief communication campaigns is also included.

Empathy Generation

This study used two distinct newswriting formats that conveyed either objective, hard news story techniques or attached, soft news story techniques. Consistent with Stotland's (1969) conceptualization of empathy, use of the soft news story provided readers with several opportunities to react "emotionally because [they] perceive that another is experiencing or about to experience an emotion" (p. 272). By contrast, the hard news story did not reference any human emotions, nor provide any specific references to human distress. Rather, the hard news story relied solely on statistics to describe the death and destruction from the disaster. Despite framing differences, overall empathy generation findings were not significant, and mean scores for both conditions were nearly the same. In order to help answer why there were nonsignificant

effects for news story on empathy generation, additional analyses were conducted with each of the individual items within the empathy scale.

Watson and Clark's (1999) PANAS-X scale includes nine emotions: sad, disgusted, downhearted, nervous, lonely, shaky, irritable, angry, and scared. Two interesting findings emerged from an exploration of a single-item measure of what are very complex emotions. First, there was a significant effect of news story format on participants' level of disgust, $F(1,218) = 5.01$, $p < 0.05$. The mean score of generated disgust was significantly higher for the Stage 1, hard news story condition ($M = 1.66$, $SD = 0.90$) than the Stage 2, soft news story condition ($M = 1.41$, $SD = 0.71$).

While both stimuli included the same beginning summary of the disaster, the hard news story ended with the following statement, while the soft news story continued into the anecdote:

> Officials in some areas expressed concern that saline water could contaminate drinking water and ruin arable land. Nearly 800 people have been displaced and crowded into unsanitary temporary shelters. Even without further calamity, the devastation will take weeks to unfold and years to repair.

Haidt, McCauley, and Rozin's (1994) study found that there are seven domains of "disgust elicitors," which include topics revolving around death, bodily excrements, gore, issues concerning hygiene, and etc. Among these disgust elicitors, Haidt et al. found that disgust was greatest when reading about death. Therefore, greater emphasis on death tolls and unhygienic conditions, rather than human emotions, may have led participants to generate more empathic disgust.

The second exploratory analysis found that news story type had a significant effect on participants' generation of loneliness, $F(1, 218) = 4.37$, $p < 0.05$. In contrast to the findings for disgust, participants were more likely to feel loneliness after reading the Stage 2, soft news story ($M = 1.77$, $SD = 1.01$) compared to the Stage 1, hard news story ($M = 1.52$, $SD = 0.79$).

While the hard news story focused on statistics, the soft news story provided the tragic details of a man who saves his wife and unborn child but then loses his life in the disaster. Therefore, participants who were exposed to this stimulus may have mirrored the widow's feelings of loneliness from the recent loss of her husband. Marangoni and Ickes (1989) conceptualize this as a state-only form of loneliness as opposed to trait loneliness, which would have implied an emotional disposition toward loneliness that was not seen in the hard news condition.

These empathy generation variations suggest that participants perceived some different empathic cues from the hard and soft news stories; yet, overall scores on the empathy index were insignificant. As previously mentioned, the index included nine emotions and asked participants to rate how much they felt the respective emotion while reading. When analyzed individually, two of the emotions (sadness and downheartedness) scored the highest. However, these scores did not vary between either news story condition, as was expected. One possible reason for this could be that both news stories began with the same overview of the disaster. Only the soft news story included the extra anecdotal piece. Therefore, a lack of overall empathy generation variation could imply that the anecdote was not strong enough to generate more sadness or downheartedness than was generated from the summary. The difference in disgust and loneliness could simply be a result of content placement. Participants who read the Stage 2, soft news story may have generated the same level of disgust as participants in the other condition; but, the subsequent anecdote could have substituted these feelings with loneliness. Therefore, the news story format manipulation was effective, but only for these two emotions, and could be heavily dependent upon the order in which content is presented.

Gender Differences in Empathy Generation

In addition to news story formats, gender also offered interesting insights in terms of empathy generation. Females were more likely to generate empathy following the hard news story ($M = 2.16$); whereas, males were more likely to generate more empathy following the soft news story ($M = 2.00$). While neither of these findings were statistically significant, the opposing relationships warrant further discussion. Rueckert and Naybar (2008) among others (e.g., Eisenberg & Lennon, 1983; Mehrabian et al., 1988) have found that males score significantly lower than females on self-report empathy scales. Incorporation of more obvious empathy cues in the soft news story may have increased the odds of males perceiving others' emotions in this story. However, females' higher levels of empathy following the hard news story are less easy to comprehend. One possible explanation could be that disgust is a stronger emotion than loneliness. Therefore, female participants' ability to generate more empathy, and also more disgust (Haidt, McCauley, & Rozin, 1994), following the hard news story may have increased the likelihood of overall empathy generation.

Emotional Contagion Differences in Empathy Generation

While this study sought to measure variation in empathy generation following stimuli exposure, another goal was to determine whether emotional contagion tendencies (or predispositions) would moderate empathy generation. Doherty's (1997) study found that people who are more susceptible to emotional contagion will also be more likely to 1) be emotionally unstable, 2) respond to others' negative emotions with feelings of compassion, empathy and other warm emotions, and 3) use affective cues for information. The present study did suggest that a positive relationship between emotional contagion and empathy likely exists, regardless of story type. However, within the hard and soft news conditions, no significant relationship was

46

found. This is likely due to the fact that no significant empathy generation differences were found between the two story types. Had the two conditions shown a significant difference in empathy generation, it is likely that there would have been a significant finding for emotional contagion as a moderating variable as well.

Compassion Generation

In addition to empathy, the present study posited that compassion generation was needed to increase the likelihood of helping behavior intent. Overall, participants indicated a high level of compassion ($M = 4.00$; when 1 = little or no compassion and 5 = deep compassion), regardless of story type. Yet, a significant relationship between compassion generation was not found when comparing story types. By primarily focusing on one disaster victim, the soft news story was expected to reduce any compassion collapse; whereas, the hard news story's focus on the overall death toll was expected to increase the likelihood of compassion collapse (Cameron & Payne, 2011). While the hard news story generated slightly more compassion ($M = 4.00$), the soft news story generated a nearly equivalent response ($M = 3.96$). On its face, a lack of compassion generation differences between the two news stories suggests that compassion collapse may be more complicated than the number of victims discussed in the news story. Moreover, it should be noted that Cameron and Payne's study operated on a much smaller scale, comparing a story that focused on one victim to a story that focused on eight victims. The conditions in the current study used a story that focused primarily on one victim compared to a story that focused on many victims (four deceased, 207 injured, and 800 displaced).Therefore, the explanatory value of compassion collapse may not be applicable when using stories with much higher victim counts.

Another explanation could, once again, be a consequence of uniformity in empathy generation between story types. It was expected that empathy generation would serve as an antecedent for compassion generation (e.g., Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007). Therefore, a lack of variation for the preceding variable may have resulted in a similar pattern for compassion generation.

Helping Behaviors

One of the primary goals of the study was to determine how to increase helping behaviors following a disaster. Therefore, the study used a prompt to inquire whether participants would be willing to donate between $10 and $50 to the local American Red Cross Chapter. Regardless of condition, 40% of participants indicated a willingness to donate. While this percentage varies greatly from the Millennial Impact (2013) study—which claimed that 83% of millennials gave in 2012—it supports the general notion that millennials are willing to give financial gifts. Within this group of donating participants, 65.9% were willing to donate $10. This is consistent with Mesch's (2012) findings that suggest that lower donation amounts are likely from members of the Millennial generation. While the study did not compare donation amounts between different generations, post-hoc comments from participants provided additional evidence for this. Specifically, a male participant indicated that he would have liked to give to the disaster victims described in the stimulus but he did not have enough money to do so.

In regard to news story format, the soft news story was expected to generate greater helping behavior intent. In an informal review, the 20 top-funded campaigns on gofundme.com (n.d.) were analyzed to determine patterns in narratives that elicit the most support. As of March 15, 2015, the most successful fundraising campaigns ranged in donation amounts from $213,356 to $1,836,780. Of the 20 campaigns, six involved support for victims of crimes or terrorism; five

involved support for the family of those who suffered an untimely death; four involved funding for those with rare or incurable diseases; three involved support for people with mental or physical disabilities; one involved funding for an animal shelter; and the last one involved funding for a man who had to walk 21 miles to and from work every day. Given the aforementioned categories, it can be argued that all campaigns seek to remedy injustice or an unfair situation. Additionally, it could be argued that all of the subjects of the campaigns are recipients of undeserved circumstances. Weiner's (1980) study found similar conclusions regarding the desire to help others when it was perceived that the person did not have the ability to help himself. Although all those affected by a natural disaster could be considered victims of an undeserved circumstance, it was expected that the soft news story—containing the specific description of unfairness—would generate more helping behavior intent. Yet, the opposite relationship was found, with more participants donating following the hard news story.

A possible explanation for this finding could be a result of the two stories used in the stimuli. As previously mentioned, the hard news story ends with a statement that indicates that there is an immense amount of work to be done to return to normal. Conversely, the soft news story provides some resolution, albeit a sad resolution. Consequently, participants may have felt that there was a greater need for monetary assistance after the hard news story.

Gender Differences in Helping Behaviors

Mesch's (2010) study claimed that females are more likely to give than males. However, the present study found that 38.4% of males and 38.3% of females demonstrated helping behavior intent, regardless of story type. There were, however, significant differences when considering story types. Female participants were significantly more likely to give after reading the Stage 1, hard news story compared to the Stage 2, soft news story. Males did not demonstrate

49

significant variation in helping behavior intent between story types. As proposed earlier, this could be a result of a greater perceived need following the hard news story, coupled with females' heightened perception of emotional cues.

Emotional Contagion Differences in Helping Behaviors

Cameron and Payne (2011) suggested that compassion collapse was a result of intentional emotion regulation used when resources needed to aid others are considered too costly. They also suggested that people who do not (or cannot) regulate their emotions will need to engage in some other form of emotional relief. This study sought to investigate whether poor emotion regulators would use donations as a means to relieve some of their emotional anxiety. Findings from the current study confirmed this notion, showing that high emotional contagion was related to greater instances of donating after reading the hard news story. The hard news story presented participants with a description of mass suffering, which they might not have been able to explain away or diminish, leaving donating as the only logical means to relieve their emotional anxiety. Participants who read the soft news story may have felt that the level of emotional anxiety generated after reading about the single victim was tolerable and did not warrant donating as a relief method.

Because emotional contagion measured participants' emotional tendencies prior to stimuli exposure, it can be suggested that innate affective tendencies play a large role in determining helping behavior intent following either news story—but especially hard news stories. While empathy and compassion generation have been shown in prior studies to contribute to helping behavior intent, this study suggests that they are not as important when considering different disaster reporting stages and news story types.

Principle of Care Differences in Helping Behaviors

The principle of care was expected to be positively correlated with helping behavior intent, per Wilhelm and Bekkers's (2010) study. Findings from the present study supported this notion with higher internalization of the principle linked to donating and lower internalization of the principle linked to the decision to not donate. This follows the premise that when people have been conditioned to care for others' well-being, they are more likely to assist others, regardless of whether the message contains hard statistics or an anecdote. In general, this bodes well for disaster relief and implies that early principle of care indoctrination can benefit later recovery efforts.

Limitations of the Study and Future Work

While several previous studies and proven theories were used to develop operationalization methodology and stimuli considerations, the present study is not without limitations. Most notable limitations pertained to the sampling method and millennial generalization, stimuli formatting, helping prompt options, and disaster proximity.

The sampling method limited the overall generalization that can be made regarding the population. In addition to using college students, this study also only pulled participants from Colorado State University's population, which is not representative of the general population, nor the full age range of the Millennial generation. The majority of participants reported ages 18 to 24, indicating limited responses from millennials between the ages of 25 and 34. Further, this study can only account for millennials attending college, while it does not address millennials that either did not attend college or have already graduated. Therefore differences in helping behavior intent, via donation, were not measured for non-college millennials. Funds may be more restricted for millennials enrolled in college than millennials out of college.

Additionally, this study only focused on the textual aspect of a story. Realistically, news stories will incorporate images, graphics, and videos to elicit empathy and compassion generation as well as helping behavior intent. Yet, incorporation of visuals could have confounded the results and detracted from the actual text. A follow-up study on effects of using visuals and then the effects of using visuals *and* text is necessary to determine ideal empathy, compassion, and helping behavior intent generators within a news narrative. An example of this is the current Humans of New York (HONY, n.d.) project on Facebook. A combination of high-quality images are used to supplement brief human-interest stories. Each post receives thousands of "likes" and comments that often inquire how to help the people featured in the post. A study that compares this type of campaign with more traditional news stories could prove beneficial for nonprofit organizations that are looking to garner more support for their causes. And more specifically, an exploration of how the social component of these posts affects helping behavior intent could also provide insight on the most effective medium for relief campaigns (e.g., social media, newspapers, websites, TV, etc.).

Further, this study only measured responses to pyramid style, Stage 1, hard news stories and hourglass style, Stage 2, soft news stories. There are many other news story formats that could have been incorporated (i.e., the *Wall Street Journal* format). Not all Stage 1 stories will follow the pyramid style, nor will all Stage 2 news stories follow the hourglass style. Therefore, additional investigation into how other news story formats have the potential to affect readers' responses could be beneficial.

Participants from the study also indicated that their desire to give was impeded by the organization listed in the helping prompt. The American Red Cross was chosen because it is a well-known and credible organization that provides disaster relief. Yet, those participants who

provided feedback on the study indicated that they would rather give to a different organization. Therefore, a study that implements a less specific prompt or that allows participants to choose their preferred organization could provide more information about millennial helping behavior intent.

Lastly, participants' proximity to the disaster may have impacted their interest level in the story. Had the story focused on a disaster that impacted Fort Collins (where CSU is located), or Colorado in general, participants may have been more willing to help the disaster victims. Moreover, the number of deaths reported in the stimuli, coupled with the disaster setting, may have lessened participants' desire to donate. Another potential study could investigate whether the number of fatalities and distance from the participants positively correlate with donations. In other words, the farther away the disaster setting, the more fatalities are needed to motivate participants to donate.

Conclusion

The study's significant findings suggest that innate tendencies (i.e., emotional contagion) and gender differences play a large role in helping behavior intent. Yet, conditioned responses (i.e., internalization of the principle of care) also affected donation decisions. However, it cannot be assumed that attached, human-interest stories will generate more empathy, compassion, or helping behavior intent than the objective, hard news stories.

Some communication best practices for attracting millennials to disaster relief campaigns, gleaned from this study, could include the following:

- *Stronger emphasis on Stage 1, hard news disaster relief campaigns.* This is less concerned with the amount of empathy, compassion, and helping behavior intent this type of story can generate and more concerned with the order of disaster stages. Because this

stage immediately follows an event, relief campaigns should ensure that fundraising campaigns are immediately prioritized. Because soft news stories generated some instances of helping behavior intent as well, it would be wise to also maintain a strong campaign during this stage.

- *Strategically organize content to increase helping behavior likelihood.* While the anecdote used in the soft news story was beneficial for generating more loneliness, it did not increase overall empathy generation. Additionally, the hard news story's kicker reminded participants of the need for donations while the soft news story simply showed participants an unfortunate disaster victim vignette. Therefore, concluding with a big picture statement that reiterates the overarching need for relief may result in more decisions to donate.

- *Utilize media platforms that cater more to females.* Recent studies have found that social media usage is similar among genders in that 80% of females and 73% of males use social media. However sites, such as Pinterest, Facebook, and Instagram have been more commonly used by females; while Reddit, Digg, and Slashdot are more commonly used by males (Anderson, 2015). Given females' heightened likelihood of donating following the hard news story, it may behoove organizations to post these type of stories to the more female-heavy platforms.

- *Target older audiences for monetary campaigns and younger audiences for volunteering opportunities.* In general, monetary disaster relief communication campaigns may be better targeted at older generations with a more stable income. However, this study confirms that a sub-group within the Millennial generation is willing to help. More

volunteering opportunities that allow millennials to provide a service rather than a donation could aid in disaster recovery efforts.

- *Diversify nonprofit organization options.* Companies or news organizations interested in garnering more support from millennials should seek to include several options of nonprofits to partner with for disaster relief. Although it may be difficult to provide a comprehensive list of all relief organizations, the more options millennials have to help, the better.

Studies have demonstrated different donating preferences for the Millennial generation than what has been seen in older generations. However, an evaluation of innate affective tendencies suggests that many millennials are predisposed to respond emotionally to disasters and demonstrate helping behavior intent. Given the right outlet, millennials can provide great support for disaster relief efforts, and therefore, should not be written off during disaster relief campaigns.

REFERENCES

Anderson, Monica. (2015). Men catch up with women on overall social media use. Retrieved from *PewResearchCenter*: http://www.pewresearch.org/fact-tank/2015/08/28/men-catch-up-with-women-on-overall-social-media-use/

Batson, C. Daniel. (1991). *The altruism question: Towards a social psychological answer*. Hillsdale, NJ: Erlbaum.

Batson, C. Daniel, Eklund, Jakob Hakansson, Chermok, Valerie L., Hoyt, Jennifer L., & Ortiz, Biaggio G. (2007). An additional antecedent of empathic concern: Valuing the welfare of the person in need. *Journal of Personality and Social Psychology, 93*(1), 65-74.

Bell, Martin. (1996, July 11). Conflict of interest [Speech]. Retrieved from http://wonderswhatwhy.livejournal.com/43104.html

Berger, Seymour M., & Hadley, Suzanne W. (1975). Some effects of a model's performance on observer electromyographic activity. *American Journal of Psychology, 88*(2), 263-276.

Botvinick, Matthew, Jha, Amishi P., Bylsma, Lauren M., Fabian, Sara A., Solomon, Patricia E., Prkachin, & Kenneth M. (2005). Viewing facial expressions of pain engages cortical areas involved in the direct experience of pain. *NeuroImage, 25*(1), 312-319.

Bourdieu, Pierre. (1998). *On television and journalism*. (P. Parkhurst Ferguson, Trans.). London: Pluto Press. (Original work published 1998).

Bruning, Roger. H., Schraw, Gregory J., Norby, Monica M., & Ronning, Royce R. (2004). *Cognitive Psychology and Instruction* (4th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

California Geological Survey. (n.d.). Anniversary of the March 11, 2011 Tohoku-oki earthquake

    and tsunami. Retrieved from

    http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/Pages/

    2011_tohoku.aspx

Cameron, C. Daryl, & Payne, B. Keith. (2011). Escaping affect: How motivated emotion

    regulation creates insensitivity to mass suffering. *Journal of Personality and Social*

    Psychology, 100(1), 1-15.

Center for International Disaster Information. (N.d.). Guidelines for giving. Retrieved from

    http://www.cidi.org/how-disaster-relief-works/guidelines-for-giving/#.VUb1_vlVikp

The Center on Philanthropy at Indiana University. (2010). *Charitable giving by type of*

    community: Comparing donation patterns of rural and urban donors. Arlington, VA:

    The Association of Fundraising Professionals.

Chaiken, Shelly, & Trope, Yaacov. (1999). *Dual-process theories in social psychology*. New

    York, NY: Guilford Press.

Cialdini, Robert B., & McPeek, Robert W. (1974, May). Yawning, yielding, and yearning to

    yawn. Paper presented at the meeting of the Midwest Psychological Association,

    Chicago.

Cohen, Jonathan. (2001). Defining identification: A theoretical look at the identification of

    audiences with media characters. *Mass communication & society, 4*(3), 245-264.

Culf, Andrew. (1996, November 23). BBC man attacks neutral war reports. *The Guardian*.

    Retrieved from www.lexisnexis.com/hottopics/lnacademic

Darley, John M., & Latané, Bibb. (1968). Bystander intervention in emergencies: Diffusion of

    responsibility. *Journal of Personality and Social Psychology, 8*(4), 377-383.

The Data Center. (2014). Facts for features: Katrina impact. Retrieved from

http://www.datacenterresearch.org/data-resources/katrina/facts-for-impact/

Davis, Mark H. (1983). Measuring individual differences in empathy: Evidence for a

multidimensional approach. *Journal of Personality and Social Psychology, 44*(1), 113–

126.

di Giovanni, Janine. (1994, August 14). Tired moving of the pictures. *The Sunday Times*.

Retrieved from www.lexisnexis.com/hottopics/lnacademic

Doherty, R. William. (1997). The emotional contagion scale: A measure of individual

differences. *Journal of Nonverbal Behavior, 21*(2), 131-154.

Dymond, Rosalind, F. (1949). A scale of measurement of empathic ability. *Journal of Consulting

Psychology, 13*(2), 127-133.

Eisenberg, Nancy. (1982). The development of reason regarding prosocial behavior. In N.

Eisenberg (Ed.) *The Development of Prosocial Behavior* (pp. 219-250). New York:

Academic Press.

Eisenberg, Nancy. (1986). *Altruistic Emotion, Cognition, and Behavior.* Hillsdale, NJ: Lawrence

Erlbaum.

Eisenberg, Nancy, Fabes, Richard A., Murphy, Bridget, Karbon, Mariss, Maszk, Pat, Smith,

Melanie, . . . Suh, Karen. (1994). The relations of emotionality and regulation to

dispositional and situational empathy-related responding. *Journal of Personality and

Social Psychology, 66*(4), 776-797.

Eisenberg, Nancy, & Lennon, Randy. (1983). Sex differences in empathy and related capacities.

Psychological Bulletin, 94(1), 100-131.

Eisenberg, Nancy, & Miller, Paul. (1987). The relation of empathy to prosocial and related behaviors. *Psychological Bulletin, 101*(1), 91-119.

Extension Disaster Education Network. (2012). *Family preparedness: Possible disasters* [PDF document]. Retrieved from http://eden.lsu.edu/EDENCourses/FamilyPreparedness/Documents/Family%20Preparedness%20Leaders%20Guide%20-%20Possible%20Disasters.pdf

Fearn-Banks, Kathleen. (2011). *Crisis Communications: A Casebook Approach*. New York, NY: Routledge.

FEMA: Federal Emergency Management Agency. (N.d.). Disaster declarations by state/tribal government. Retrieved from https://www.fema.gov/disasters/grid/state-tribal-government

FEMA. (2014). Disaster declarations by year. Retrieved from http://www.fema.gov/disasters/grid/year

Fink, Steven. (1986). *Crisis management: Planning for the inevitable.* New York, NY: American Management Association.

Fischer, Henry W. (1998). *Response to disaster: Fact versus fiction & its perpetuation: The sociology of disaster* (2nd ed.). Lanham, MD: University Press of America, Inc.

Fischer, Henry W. (2008). *Response to disaster: Fact versus fiction & its perpetuation: The sociology of disaster* (3rd ed.). Lanham, MD: University Press of America, Inc.

Fritz, Charles E. (1961). Disasters. In R. K. Merton and R. A. Nisbet (Eds.) *Contemporary Social Problems* (pp. 651-694). New York: Harcourt.

Goetz, Jennifer L., Keltner, Dacher, & Simon-Thomas, Emiliana. (2010). Compassion: An evolutionary analysis and empirical review. *Psychological Bulletin, 136*(3), 351-374.

Goffman, Erving. (1974). *Frame analysis: An essay on the organization of experience.* Cambridge, Mass.: Harvard University Press.

GoFundMe.com. (N.d.). Most Raised: The most successful GoFundMe fundraising campaigns of all-time. Retrieved on 3/15/15 from http://www.gofundme.com/most

Gordon, Russell W., & Mentzel, Robert K. (1990). Sympathy and Altruism in Response to Disasters. *Journal of Social Psychology, 130*(3), 309-316.

Goubert, Liesbet, Craig, Kenneth D., Vervoort, Tine, Morley, Stephen, Sullivan, M. J. L., Williams, Amanda C. de C.,…Crombez, Geert. (2005). Facing others in pain: The effects of empathy. *Pain, 118*(3), 285-288. doi:10.1016/j.pain.2005.10.025

Guha-Sapir, Debarati, Hoyois, Philippe, & Below, Regina. (2013). *Annual Disaster Statistical Review: The numbers and the trends.* Brussels: CRED.

Haidt, Jonathan, McCauley, Clark, & Rozin, Paul. (1994). Individual differences in sensitivity to disgust: A scale sampling seven domains of disgust elicitors. *Personality and Individual Differences*, *16*(5), 701-713.

Hamilton, David L., & Sherman, Steven J. (1996). Perceiving persons and groups. *Psychological Review, 103*(2), 336-355.

Hamilton, David L., Sherman, Steven J., & Maddox, Keith B. (1999). Dualities and continua: Implications for understanding perceptions of persons and groups. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 606–626). New York, NY: Guilford.

Hatfield, Elaine, Cacioppo, John T., & Rapson, Richard L. (1994). *Emotional contagion.* New York: Cambridge University Press.

Hoffman, Martin L. (1981). Is altruism part of human nature? *Journal of Personality and Social Psychology, 40*(1), 121-137.

Hoffman, Martin L. (2000). *Empathy and Moral Development: Implications for Caring and Justice.* Cambridge, UK: Cambridge University Press.

HONY; Humans of New York. (N.d.). Homepage. Retrieved from http://www.humansofnewyork.com/

Hull, Clark L. (1933). *Hypnosis and suggestibility.* New York: Appleton-Century-Crofts.

Humphrey, George. (1922). The conditioned reflex and the elementary social reaction. *Journal of Abnormal and Social Psychology, 17*(2), 113-119. doi:10.1037/h0065331

Hunt, Anne. (N.d.). A Researcher's Guide to Power Analysis. Retrieved from https://rgs.usu.edu/irb/files/uploads/A_Researchers_Guide_to_Power_Analysis_USU.pdf

Institutional Research. (2013). *The Fact Book: 2013-14.* Retrieved from http://www.ir.colostate.edu/pdf/fbk/1314/2013_14_Fact_Book.pdf

Keen, Suzanne. (2006). A theory of narrative empathy. *Narrative, 14*(3), 207-236.

Kogut, Tehila, & Ritov, Ilana. (2005). The "identified victim" effect: An identified group, or just a single individual? *Journal of Behavioral Decision Making, 18*, 157-167.

Lipps, Theodor. (1979). Empathy, inner imitation and sense-feelings. *A modern book of esthetics*. (M. Schertel & M. M. Rader, Trans.). New York, NY: Holt, Rinehart and Winston, (Original work published 1907).

Loggia, Marco L., Mogil, Jeffrey S., & Bushnell, M. Catherine. (2008). Empathy hurts: Compassion for another increases both sensory and affective components of pain perception. *Pain, 136*(1-2), 168-176. doi: 10.1016/j.pain.2007.07.017

Marangoni, Carol, & Ickes, William. (1989). Loneliness: A theoretical review with implications for measurement. *Journal of Social and Personal Relationships, 6*(1), 93-128.

McCombs, Maxwell E., & Shaw, Donald L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly, 36*(2), 176-187.

Mehrabian, Albert. (1997). Relations among personality scales of aggression, violence, and empathy: Validational evidence bearing on the risk of violence scale. *Aggressive Behavior, 23*(6) 433-445.

Mehrabian, Albert, & Epstein, Norman. (1972). A measure of emotional empathy. *Journal of Personality, 40*(4), 525-543.

Mehrabian, Albert, Young, Andrew L., & Sato, Sharon. (1988). Emotional empathy and associated individual differences. *Current Psychology: Research & Reviews, 7*(3), 221-240.

Mesch, Debra J. (2010). *Women Give 2010: New research about women and giving.* Retrieved from The Center on Philanthropy at Indiana University: http://www.philanthropy.iupui.edu/files/research/women_give_2010_report.pdf

Mesch, Debra J. (2012). *Women Give 2012: New research about women and giving.* Retrieved from The Center on Philanthropy at Indiana University: http://www.philanthropy.iupui.edu/files/research/womengive2012forrelease.pdf

The Millennial Impact. (2013). *The 2013 Millennial Impact Report.* Retrieved from http://fi.fudwaca.com/mi/files/2015/04/MIR_2013.pdf

National Disaster Education Coalition. (1999). Tsunami. *Talking about disasters: Guide for standard messages.* Retrieved from http://www.disastercenter.com/guide/tsunami.pdf

National Philanthropic Trust. (2013). Charitable giving statistics. Retrieved from

http://www.nptrust.org/philanthropic-resources/charitable-giving-statistics/

Onstot, Lynn Iliff. (2013). Joplin, Missouri hit by EF-5 tornado on May 22, 2011 [PDF

document]. Retrieved from http://www.joplinmo.org/DocumentCenter/View/1985

O'Toole, Richard, & Dubin, Robert. (1968). Baby feeding and body sway: An experiment in

George Herbert Mead's "taking the role of the other." *Journal of Personality and Social

Psychology, 10*, 59-65.

Peek, Lori. (2012). They Call It "Katrina Fatigue." In L. Weber and L. Peek (Eds.) *Displaced:

Life in the Katrina Diaspora* (pp. 31-46). Austin, TX: University of Texas Press.

Provine, Robert R. (1992). Contagious laughter: Laughter is a sufficient stimulus for laughs and

smiles. *Bulletin of the Psychonomic Society, 30*(1), 1-4.

ReliefWeb. (2015). Disasters. Retrieved from http://reliefweb.int/

Rich, Carole. (2010). *Writing and reporting news: A coaching method* (6th ed.). Boston:

Wadsworth.

Rooney, Patrick M., Mesch, Debra J., Chin, William, & Steinberg, Kathryn S. (2005). The

effects of race, gender, and survey methodologies on giving in the U.S. *Economic Letters,

86*(2), 173-180.

Rueckert, Linda, & Naybar, Nicolette. (2008). Gender differences in empathy: The role of the

right hemisphere. *Brain and Cognition, 67*(2), 162-167.

Sagi, Abraham, & Hoffman, Martin L. (1976). Empathic distress in newborns. *Developmental

Psychology, 12*(2), 175-176. doi:10.1037/0012-1649.12.2.175

Sherman, Steven J., Beike, Denise R., & Ryalls, Kenneth R. (1999). Dual-processing accounts of

inconsistencies in responses to general versus specific cases. In S. Chaiken & Y. Trope

(Eds.), *Dual-process theories in social psychology* (pp. 203-230). New York, NY: Guilford Press.

Singer, Tania, Seymour, Ben, O'Doherty, John, Kaube, Holger, Dolan, Raymond J., & Frith, Chris. D. (2004). Empathy for pain involves the affective but not sensory components of pain. *Science, 303*, 1157-1162.

Spitz, Rene A, & Wolf, K. M. (1946). The smiling response: A contribution to the ontogenesis of social relations. *Genetic Psychology Monographs, 34*, 57-125.

Stotland, Ezra. (1969). Exploratory investigations of empathy. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol 4) (pp. 271-314). New York: Academic Press.

Stotland, Ezra. (1978). *Empathy, fantasy, and helping*. Beverly Hills, Calif.: Sage Publications.

Tester, Keith. (2001). *Compassion, morality and the media.* Buckingham: Open University Press.

Tukachinsky, Riva. (2014). Experimental manipulation of psychological involvement with media. *Communication Methods and Measures, 8*(1), 1-33. doi: 10.1080/19312458.2013.873777

U.S. Census Bureau. (2010). 2010 census urban and rural classification and urban area criteria. Retrieved from http://www.census.gov/geo/reference/ua/urban-rural-2010.html

Watson, David, & Clark, Lee Anna. (1999). *The PANAS-X: Manual for the positive and negative affect schedule – expanded form.* Retrieved from http://ir.uiowa.edu/psychology_pubs/11/

Wei, Jiuchang, Zhao, Dingtao, & Liang, Liang. (2009). Estimating the growth models of news stories on disasters. *Journal of the American Society for Information Science and Technology, 60*(9), 1741-1755.

Weiner, Bernard. (1980). A cognitive (attribution)-emotion-action model of motivated behavior:

An analysis of judgments of help-giving. *Journal of Personality and Social Psychology,*

39(2), 186-200.

Wilhelm, Mark Ottoni, & Bekkers, Rene. (2010). Helping behavior, dispositional empathic

concern, and the principle of care. *Social Psychology Quarterly, 73*(1), 11-32.

Pre-Stimulus Measurements

Emotional Contagion Scale

The negative subscale of Doherty's (1997) emotional contagion scale will be used to explore RQ1and RQ2: whether emotional dispositions significantly affect participants' empathy generation and helping behavior intent response.

Instructions: To the best of your ability, answer each question about your emotional tendencies.

1. If someone I'm talking with begins to cry, I get teary-eyed.

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

2. I get filled with sorrow when people talk about the death of their loved ones.

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

3. I clench my jaws and my shoulders get tight when I see the angry faces on the news.

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

4. It irritates me to be around angry people.

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

5. Watching the <u>fearful</u> faces of victims on the news makes me try to imagine how they might be feeling.

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

6. I tense when overhearing an angry quarrel.

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

7. I notice myself getting tense when I'm around people who are stressed out.

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

8. I cry at sad movies.

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

9. Listening to the shrill screams of a terrified child in a dentist's waiting room makes me feel nervous.

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

Principle of Care Scale

Wilhelm and Bekkers's (2010) principle of care three-item index will be used to test H4: internalization of the principle of care is positively linked to helping behavior intent.

Instructions: To the best of your ability, answer each question about your beliefs.

1. People should be willing to help others who are less fortunate.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

2. Personally assisting people in trouble is very important to me.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

3. These days people need to look after themselves and not overly worry about others.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Post-Stimulus Measurements

Helping Behavior Intent Prompt

The following prompt will immediately follow each stimulus to determine the level of helping behavior intent participants are willing to exhibit. The greater the donation amount selected, the greater the willingness to help.

The Northern Colorado Chapter of the American Red Cross has partnered with CSU to collect donations for the tsunami victims in Oregon. Donations will be used to provide shelter materials, clean water supplies, hygiene and cooking kits. Please indicate whether you would like to help the recovery efforts in Oregon with a one-time donation. Any amount helps!

How much would you like to give?

○ $10   ○ $40

○ $20   ○ $50 or more

○ $30   ○ I do not want to make a donation.

Empathy Scale

Watson and Clark's (1999) PANAS-X scale will be used to measure participants'

emotional reactions to the stimuli.

Instructions: This scale consists of a number of words and phrases that describe different feelings. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you felt this way while reading the story. Use the following scale to record your answers:

1	2	3	4	5
very slightly	a little	moderately	quite a bit	extremely
or not at all				

_____ sad   _____ disgusted   _____ downhearted
_____ nervous   _____ lonely   _____ shaky
_____ irritable   _____ angry   _____ scared

Compassion Scale

Measurements of participants' compassion generation will be assessed using a slider

scale. This will allow the participants to reflect on how much they actually felt compassion for

the disaster victims.

Instructions: On a scale of 1 to 5, indicate how much compassion you felt for the tsunami victims while reading the story.

1	2	3	4	5
Little to no				Deep
Compassion				Compassion

Prior Disaster Experience

Measurements of participants' prior disaster experience will account for any uncontrolled

individual differences regarding first-hand experience with tsunamis.

Instructions: To the best of your ability, answer each question about your prior tsunami experiences.

1. I, personally, have experienced a disaster (natural and/or manmade).
a) Yes
b) No
c. Unsure

2. I know people who have experienced a disaster (natural and/or manmade).
a) Yes
b) No
c. Unsure

Testing Environment Characteristics

Because this experiment will utilize an online survey tool, the testing environment cannot

be adequately controlled. This measurement will account for possible confounding variables

attributed to a non-regulated testing environment.

Instructions: The following questions ask about the environment in which you completed this survey. Select the appropriate response.

1. Where did you complete this study?
a) home   b) school   c) work   d) other _____

2. Were other people in the room with you (or nearby) while you completed this survey?
a) Yes   b) No

3. What was the noise level of the room in which you completed this survey?
1   2   3   4   5
Very quiet   Very loud

4. While completing this survey, how many times did you intentionally stop to do something else?
0   1   2   3   4   5 or more times

5. While completing this survey, how many times were you interrupted?
0   1   2   3   4   5 or more times

Demographics

This measurement will record the participants' demographic information and prior

disaster experiences for general exploratory purposes.

Instructions: To the best of your ability, select the answer that best describes you.

1. Gender
a) Male
b) Female

2. Age
a) 18 to 24
b) 25-34
c) 35-44
d) 45-54
e) 55-64
f) 65 or older

3. Ethnicity
a) White
b) Hispanic
c) Black
d) Asian
e) Native American
d) Hawaiian/Pacific Islander
e) Multi-racial
f) Other

APPENDIX B: STIMULI

Stage 1: Hard News Story

NEWPORT -- A tsunami pulverized the Pacific Coast, on Tuesday, including the small, beachside city of Newport, Ore., which left four dead and 207 others injured, officials said.

The U.S. Geological Survey said that an earthquake off the coast of Alaska produced the tsunami that washed away several homes and businesses along the coast.

A total of three waves hit, wiping out close to 150 homes, and seriously damaging nearly 1,600 others. Several overturned cars were swept along the current into the Newport Public Library and other nearby businesses, while a couple grand pianos have settled on rooftops and in trees.

A Newport Utilities Representative stated that up to 3,000 homes were without power for the first 12 hours following the waves. Backup generators have been set up in several emergency shelters.

According to Newport Police Spokesperson, Barbara Kitchens, the 207 who were injured have been taken to Samaritan Pacific Communities Hospital, including 15 who were seriously injured.

Officials in some areas expressed concern that saline water could contaminate drinking water and ruin arable land. Nearly 800 people have been displaced and crowded into unsanitary temporary shelters. Even without further calamity, the devastation will take weeks to unfold and years to repair.

Stage 2: Soft News Story

NEWPORT -- A tsunami pulverized the Pacific Coast, on Tuesday, including the small, beachside city of Newport, Ore., which left four dead and 207 others injured, officials said.

The U.S. Geological Survey said that an earthquake off the coast of Alaska produced the tsunami that washed away several homes and businesses along the coast.

A total of three waves hit, wiping out close to 150 homes, and seriously damaging nearly 1,600 others. Several overturned cars were swept along the current into the Newport Public Library and other nearby businesses, while a couple grand pianos have settled on rooftops and in trees.

A Newport Utilities Representative stated that up to 3,000 homes were without power for the first 12 hours following the waves. Backup generators have been set up in several emergency shelters.

According to Newport Police Spokesperson, Barbara Kitchens, the 207 who were injured have been taken to Samaritan Pacific Communities Hospital, including 15 who were seriously injured.

Officials in some areas expressed concern that saline water could contaminate drinking water and ruin arable land. Nearly 800 people have been displaced and crowded into unsanitary temporary shelters. Even without further calamity, the devastation will take weeks to unfold and years to repair.

Todd Baxter, one of the four confirmed killed from the tsunami, died "an absolute hero," said his mother, Linda Baxter.

Todd and his wife were spending the week vacationing at a beachfront resort when the tsunami struck.

Close friend, Ray Walters, said that when the waves came, Todd sprinted from the beach calling to his 28-year-old pregnant wife, Jessica.

"He was screaming for her to get to safety, but he did not make it. The water just took him," said Walters.

Jessica recalled that "he had come flying up from the beach and lifted me onto a second-floor balcony for safety because I couldn't swim, but then he was taken by the swell. He would be alive if he had not stopped to save me."

Although cut and bruised, Jessica and her unborn son escaped unharmed.

When Todd had last spoken to his mother a few weeks ago, he had just seen the first ultrasounds of his unborn child. Linda wasn't surprised to hear that Todd had died while saving his wife.

"He really loved that girl; they were made for each other," she said. "It just breaks my heart to know that their son will never meet his father. But at least he will always know how much his father loved him and his mother."