

EXAMINING THE EFFECTIVENESS OF MESSAGING DURING A PANDEMIC: IMPLICATIONS FOR SOCIAL MARKETING

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COVID-19 riddled many Americans with fear and anxiety. This research examined the role that feelings of gratitude elicited by an advertisement played in individuals' emotional well-being and investigated how efforts to manage anxiety influenced social marketing initiatives at the outset of the COVID-19 outbreak. Study 1 revealed that emotion management serves as a mediator between feelings of gratitude and prosocial behavior. Prosocial behavior then leads to intentions to comply with social marketing messages to slow the spread of COVID-19. Study 2 investigated how enlisting an "other" orientation in social marketing messages stimulated compliance with government guidelines to control the spread of COVID-19. Results confirm that as individuals attempt to mitigate anxiety by experiencing feelings of gratitude, messages promoting an "other-orientation" were effective in garnering compliance with government guidelines. Implications for marketing and the management of messaging during catastrophic occurrences are discussed.

INTRODUCTION

COVID-19 became a pandemic in March 2020 (World Health Organization, 2020), and resulted in more than a million deaths as it rapidly expanded across the globe. The first documented case of the virus in the United States occurred in January of 2020, and in the ensuing months, the virus ferociously spread across the United States. Governments imposed stay-at-home orders and implored individuals to practice behaviors that would slow the virus' spread (CDC, 2020; White House, 2020).

During its inception, the coronavirus pandemic riddled many Americans with fear and anxiety. According to a poll conducted by the American Psychological Association in March of 2020, nearly half of Americans (48%) reported feeling anxious about the possibility of contracting the coronavirus. More than one-third (36%) said that the coronavirus pandemic severely affected their mental health. Feelings of anxiety had become inherent in everyday living (Sharp, 2020). However, even before COVID-19, anxiety disorders were the most common mental illnesses in the U.S., affecting 40 million adults every year (ADAA, 2020).

In recent years, anxiety has especially become a concern for young adults. In fact, a recent study found that approximately 60% of college students feel overwhelming anxiety (Center of Collegiate Mental Health, 2020). Additionally, more individuals from the millennial generational cohort have been diagnosed with anxiety disorders than previous generations (Blue Cross Blue Shield Association, 2019). Overall, Gen Z and millennials are reporting high rates of depression and anxiety (Blue Cross Blue Shield Association, 2019; American Psychological Association, 2019). Thus, the coronavirus outbreak may have heightened anxiety levels that already existed in the United States, with young adults potentially being a vulnerable group.

This research seeks to examine how marketing could be used to help young adults manage negative emotions during the early outbreak of the coronavirus (COVID-19) pandemic while contributing to societal well-being. Drawing from the broaden-and-build theory of positive emotions (Fredrickson et al., 2000), it provides insight on the benefits of gratitude and how it can be used to mitigate negative emotions and stimulate prosocial, or helping behaviors. Specifically, it investigates the impact of gratitude messages on emotional health for those with heightened anxiety and addresses the role that social marketing efforts played during

the early part of the coronavirus pandemic (March-April 2020). Findings from two studies examine the relationship between anxiety, gratitude, prosocial behavior, and behavioral intentions to slow the spread of COVID-19. The studies demonstrate how negative emotions, such as anxiety, can be down-regulated or alleviated by gratitude. In addition, this research examines how gratitude and promoting an "other-orientation" in marketing communications can be effective at stimulating compliant behaviors that serve the greater good. Finally, this research offers further understanding on how marketing can help to promote socially responsible behaviors (Gordon et al., 2018). Social marketing programs, implemented primarily by nonprofit and governmental agencies, exist to help initiate behavioral change for social good (Andreassen, 2002; Kemp & Kopp, 2010). Recommendations are offered for addressing mental health and developing social marketing messaging during catastrophic occurrences.

CONCEPTUAL BACKGROUND

Anxiety and Emotion Management

Anxiety is one of the most common mental health disorders and represents a significant public health concern (Baxter et al., 2014). Anxiety is a low-certainty emotion and is characterized by anticipation of future danger or misfortune. It is often accompanied by physiological reactions, including muscle tension, and an increase in heart rate and breathing (American Psychiatric Association, 2019). Cognitive appraisal theorists contend that anxiety triggers a behavioral action tendency of preparing individuals to deal with a crisis to reduce uncertainties (Raghunathan & Pham, 1999). However, its short-term physical effects can be counterproductive, causing light-headedness, nausea, diarrhea, and frequent urination (Harvard Health, 2018). The long-term physical effects of anxiety can be severe. For example, anxiety has been linked to heart disease, respiratory disorders, and gastrointestinal conditions (Harvard Health, 2018).

Because anxiety involves excessive worry and can be counterproductive and even debilitating (Simpson, Lewis-Fernandez & Schneier, 2010;

National Institute of Mental Health, 2019), it is often preferable to find ways to manage or regulate it (ADAA, 2020). Regulating or managing emotions is a process that involves diminishing, intensifying, or simply maintaining an existing emotion (Gross, Richards & John, 2006; Kemp, Bui & Chapa, 2015; Barańczuk, 2019). Emotion theorists subscribe to the idea that negative emotions trigger specific action tendencies, narrowing the set of behavioral actions that individuals consider (Fredrickson, 2004). Particularly germane to regulating negative emotions like anxiety is the broaden-and-build theory of positive emotions (Fredrickson et al., 2000). The broaden-and-build theory of emotions proposes that positive emotions "down-regulate" or "undo" the effects of negative emotions. Positive emotions promote cognitive flexibility, shifting one's thoughts away from the stressor (Isen, 2007). Fredrickson et al. (2000) found physiological support for this phenomenon. In one study, participants were subjected to an anxiety-inducing task that stimulated cardiovascular reactivity. Following the task, participants viewed films that elicited contentment, amusement, or sadness. Those participants in the positive emotion-inducing conditions (amusement and contentment) experienced a faster return to baseline cardiovascular reactivity than those participants shown films that elicited the negative emotion (sadness) and those in the control (neutral) condition. These findings offer empirical support for the ability of positive emotions to "undo" the effects of negative emotions.

Gratitude

Gratitude is a positive emotion shown to mitigate the adverse effects of negative emotions (Fredrickson & Levenson, 1998; Tugade & Fredrickson, 2004). Gratitude is also a moral emotion that promotes positive interactions and serves several functions (McCullough, Kilpatrick, Emmons & Larson, 2001; Fredrickson, 2004). For example, gratitude informs individuals that actions were taken to their benefit (i.e., moral barometer) and encourages them to emulate positive behaviors toward others (i.e., moral motivator). It also encourages their benefactor to give again (i.e., moral reinforcer). People experience feelings of gratitude when they benefit from words of

thanks, gifts, assistance, kindness, and support from others. These feelings allow individuals to cherish positive experiences and cope with stressful circumstances (Lyubomirsky et al., 2005). Research has also shown that grateful people exhibit lower rates of psychological disorders, such as depression and anxiety (Petrocchi & Couyoumdjian, 2016).

Because gratitude stimulates a "moral motivator" function, feelings of gratitude can promote prosocial behavior (McCullough & Tsang, 2004; Raggio & Folsie, 2009, 2011; Yost-Dubrow & Dunham, 2018). Emmons and McCullough (2003) found that people led to focus on their blessings were more likely to report having helped someone with a personal problem or offered emotional support to another. Further, Tsang (2006) found that individuals primed with gratitude before participating in a prosocial task were more helpful than a control group. Grant and Gino (2010) found that gratitude expressions help individuals feel socially valued, thus increasing prosocial behavior.

As demonstrated by Fredrickson (2004), positive emotions such as gratitude differ from negative emotions in their ability to broaden (not narrow) action tendencies. This broader thought-action tendency elicits a wide range of potential actions and reflections about grateful situations. Not only are actions limited to others, who benefit from prosocial behaviors, but they strengthen a beneficiary's personal and social resources; gratitude strengthens social bonds and links individuals more closely to society (Fredrickson, 2004). Further, this broader thought-action tendency offers long-lasting effects, promoting health and well-being.

Social Marketing and COVID-19

Social marketing programs exist to induce volitional change at the individual level (Rothschild, 1999; Kemp & Kopp, 2011). Such programs are implemented primarily by government and nonprofit agencies (Andreasen, 2002, 2012; Grier & Schaller, 2020); however, at the inception of the coronavirus pandemic, several private entities engaged in social marketing efforts to urge individuals to comply with guidelines to stop the spread of the

coronavirus (CDC, 2020; White House, 2020; Lundstrom, 2020). For example, some brands helped to amplify the "stay at home" messaging promulgated by government entities by purchasing billboards with messaging encouraging people to stay at home (e.g., Coca-Cola billboards in Times Square, "stay apart as the best way to stay united"). Other brands focused on social media channels (e.g., Nike promoted their "Play Inside, Play for the World") (Wrobel, 2020). Entertainment giants like NBC Universal created a new series of its iconic "The More You Know" public service announcements featuring celebrities in homemade videos with messaging on how to slow the spread of the coronavirus (Lundstrom, 2020).

In March 2020, the Centers for Disease Control and Prevention (CDC) and public health experts on the White House Coronavirus Task Force also established guidelines for containing the coronavirus. These guidelines included avoiding social gatherings of 10 or more people; social distancing by remaining at least 6 feet from others in public spaces; using drive-thru, pick-up or delivery options; avoiding discretionary travel, not visiting nursing homes or long-term care facilities unless providing critical assistance; and finally, practicing good hygiene, such as avoiding touching the face, sneezing or coughing on tissue or into the elbow, and disinfecting surfaces (note: wearing face masks were not recommended until April 2020) (CDC, 2020; White House, 2020).

HYPOTHESIS DEVELOPMENT

The coronavirus pandemic increased the anxiety of Americans, and young adults already suffering from anxiety were especially susceptible. Because anxiety can involve excessive worry, which can become counterproductive, it is often in an individual's best interest to manage or regulate anxiety levels. Individuals can work to manage or regulate emotions by experiencing positive emotions, which can undo the effects of negative emotions (Fredrickson et al., 2000). Specifically, expressions of gratitude have been found to correlate with high levels of positive affect (Emmons & McCullough, 2003). Gratitude can mitigate the adverse effects of negative emotions and help foster positive

emotions (Fredrickson et al., 2000, Tugade & Fredrickson, 2004).

According to the broaden-and-build theory (Fredrickson et al., 2000), positive emotions can enhance cognitive flexibility and divert one's thoughts away from stressors (Isen, 2007). Distinctively, positive emotions, such as gratitude, release a person from narrow, resolution-specific action tendencies, broaden thinking, and allow for the management of negative emotions. Thus, gratitude is a positive emotion that might serve to broaden one's perspective, as reflected by improved emotional management. Accordingly, the following is predicted (see Figure 1):

H_{1a}: Feelings of gratitude will increase positive emotion management behaviors.

Gratitude is a moral emotion and motivates individuals to interact with others (Yost-Dubrow & Dunham, 2018). It strengthens social bonds and links individuals more closely to society (Fredrickson, 2004). As gratitude broadens momentary thought-action repertoire, which involves greater recognition of positive actions and emotion management processes, this broadening mechanism elicits a wide range of potential actions, including intentions to engage in prosocial behavior, or actions that help others (McCullough & Tsang, 2004; Raggio & Folsie, 2009, 2011). Thus, the following is proposed:

H_{1b}: Positive emotion management will increase intentions to engage in prosocial behaviors.

During the coronavirus outbreak, public health officials urged individuals to consider the importance of complying with guidelines to slow the virus's spread. Those who had underlying health conditions (i.e., heart disease, lung disease, and diabetes) and the elderly were particularly at a higher risk of having severe complications from the disease (CDC, 2020; Beacham, 2020). Moreover, some individuals could be asymptomatic but unknowingly spread the virus. Therefore, individuals were encouraged to consider the well-being of others and to follow suggested guidelines.

As individuals work to mitigate anxiety by experiencing feelings of gratitude, their

tendency to adopt prosocial behaviors and attend to others' needs might increase their likelihood of complying with guidelines outlined in marketing communications to abate the spread of the coronavirus. As individuals consider the well-being of others, they might become more amenable to changing behaviors in their own lives to protect and care for others (Cherry & Caldwell, 2013). Subsequently, the following is predicted:

H_{1c}: Intentions to engage in prosocial behaviors will increase intentions to comply with government guidelines outlined in marketing communications to slow the spread of COVID-19.

The literature recognizes that people may vary in the extent to which they possess a "self" versus "other" orientation. The difference between a self-orientation and an other-orientation refers to the degree to which a particular behavior or attribute is likely to enhance and affirm aspects of either the self (self-orientation) or others (other-orientation). Being motivated by one's personal goals, expressing, and esteeming the self promotes the "self" and embodies a self-orientation. In contrast, caring for, helping others, and valuing one's social responsibility promotes "others" and exemplifies an other-orientation. Self-oriented characteristics affirm individualist views, whereas other-oriented attributes underscore collectivist views (Markus & Kitayama, 1991; Miyamoto et al., 2018). Collectivism, a predominant cultural orientation in East Asia, refers to placing group concerns above personal concerns. In contrast, individualism, a predominant cultural orientation in North America and Western Europe, refers to placing individual concerns above those of the group (Markus & Kitayama, 1991).

Scholarly research suggests that collectivism can serve as a natural buffer against disease transmission. Notably, deviance from the status quo can pose a contagion; consequently, conformity can help guard against disease (Cashdan & Steele, 2013). Gelfand et al. (2011) found that societies with well-established norms and sanctions are more likely to be found where environmental threats, including infectious disease, are more severe. They explain this phenomenon by suggesting that such societies benefit from values that enhance

order and social coordination, effectively addressing environmental dangers.

With the fierce spread of coronavirus, more societies may feel increased pressures of conformity, or at the very least, individuals will enlist behaviors and actions that consider others. Given the unique nature of the coronavirus threat, social marketing messages might be made more effective in getting individuals to prioritize group goals over personal goals. During the coronavirus's early outbreak, some young adults were reported having house parties and vacationing en masse at beaches (Mahdavi, 2020). However, messaging that pursues an other-orientation might be useful in encouraging behaviors in favor of the greater good, making everyone feel responsible. Subsequently, as individuals make attempts to mitigate anxiety levels during the coronavirus outbreak by experiencing feelings of gratitude, social marketing messages that promote an other-orientation might be more effective in garnering individuals' compliance than messages that do not foster an other-orientation.

H₂: Individuals who express feelings of gratitude and are exposed to social marketing messages, which promote an other-orientation, will be more likely to comply with guidelines to slow the spread of COVID-19 than individuals who express feelings of gratitude but are not exposed to messaging promoting an other-orientation.

STUDY 1

Design and Procedure

We conducted Study 1 from March 25 -31, 2020, during the early weeks of the coronavirus pandemic in the United States. Participants were first told to spend at least three minutes writing about any concerns and anxieties they had about the coronavirus outbreak. The purpose of this exercise was to induce anxiety. Having an individual reflect and write about an episode that makes them feel a specific emotion (autobiographical emotional memory task) has been commonly used to induce emotions (D'Mello & Mills, 2013; Joseph et al., 2020). Following the anxiety-inducing exercise, participants were randomly assigned to one of

two ads. One ad was specifically designed to prime gratitude and asked participants to think of three things for which they were thankful. The other ad represented the control condition and featured an ad for shoe polish (see Appendix). Following the ads, all participants then viewed the public service announcement, part of the White House's "Coronavirus Guidelines for America: 15 Days to Slow the Spread" campaign (see Appendix).

Sample

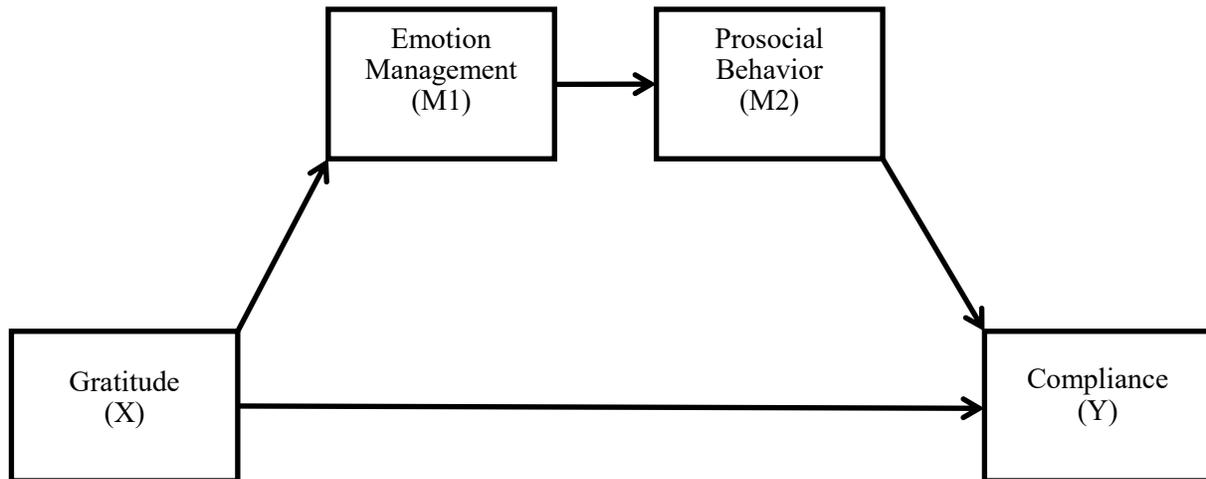
Participants (n =105) were recruited from Amazon Mechanical Turk (MTurk) in exchange for monetary compensation. All participants were from the United States and belonged to the Millennial and Gen Z cohort (mean age = 29; 40% were female). Millennials are born between 1981 and 1996, and Gen Z are born between 1997 and 2012 (Pew Research, 2019).

Measures

Following the opening scenario (i.e., anxiety induction), gratitude manipulation, and the ad for the coronavirus abatement guidelines, participants were asked to complete a series of questions designed to capture the dependent variable and process measures. For the primary dependent measure of compliance, we asked participants to indicate their extent of agreement or disagreement to the following statements using a 7-point scale (1 – Extremely unlikely, 7 – Extremely likely): “I will do the things advised in the message to slow the spread of the Coronavirus,” “I will engage in social distancing to slow the spread of the Coronavirus,” “I will avoid non-essential travel,” “I will avoid social gatherings to slow the spread of Coronavirus,” and “I will practice good hygiene.” These measures were used to capture the extent to which participants were willing to comply with the guidelines provided by the federal government.

For the first process measure, emotional management, we asked participants to rate the extent to which they agreed/disagreed with the following statements using a 7-point Likert scale (1 – Strongly disagree, 7 – Strongly agree): “I feel calmer,” “I feel better,” “I now think about things in a more positive way,” “I

**FIGURE 1:
Conceptual Model**



can now deal with my anxieties in a positive manner,” and “I now have a more positive attitude about how to manage anxiety.” This measure was developed specifically for this research and was used to capture the extent to which the manipulation designed to induce feelings of gratitude helped participants regulate emotions by experiencing positive emotions.

For the second process measure, prosocial behavior, participants were asked to indicate the likelihood to which they would engage in different types of prosocial behaviors (adapted from Emmons & McCullough, 2003) expressed through the following statements: “What is the likelihood of you helping someone in need (e.g., older neighbor) during the Coronavirus Outbreak?” “What is the likelihood of you contacting others to provide comfort (i.e., emotional support) during the Coronavirus Outbreak?” and “What is the likelihood of you lending your knowledge and ability (e.g., about technology, etc.) to someone who is in need during the Coronavirus Outbreak?” All statements were measured using two items (Not very likely/Very likely, and Not very probable/Very probable) on a 7-point scale.

Results

To confirm that the advertisement shown in the gratitude condition did induce feelings of gratitude, we asked participants to indicate the extent to which they agreed/disagreed with

statements such as “I feel thankful,” “I feel grateful,” using a 7-point Likert scale (1 – Strongly disagree, 7 – Strongly agree). Results showed that participants in the gratitude condition experienced higher levels of gratitude after seeing the advertisement ($M_{\text{Gratitude}} = 5.37$) than did those in the control condition ($M_{\text{Control}} = 3.69$; $t(103) = 5.81$, $p < .001$), indicating a successful manipulation of gratitude.

For the measures of compliance, emotional management, and prosocial behaviors, we created a composite mean score variable following a factor analysis of each measurement. All items for each construct loaded on a single factor (only one component with eigenvalues greater than 1). Cronbach’s α was equal to or greater than .90 for all measures (see Table 1).

We used regression to test the direct effects of H_{1a-c} . H_{1a} predicted that feelings of gratitude would increase emotion management. H_{1a} is supported ($\beta = .94$, $SE = .30$, $p < .01$), as feelings of gratitude ignited emotion management processes (see Table 2). Next, H_{1b} predicted that emotion management processes would increase helping, or prosocial behavior. The data support H_{1b} ($\beta = .28$, $SE = .09$, $p < .01$). Finally, H_{1c} predicted that engaging in prosocial behaviors would increase compliance with government guidelines to slow the spread of COVID-19. ($\beta = .18$, $SE = .07$, $p < .05$). This hypothesis is also supported.

TABLE 1:
Factor Analysis (Study 1)

Factor	Items	Loadings	Communality
Compliance	I will do the things advised in the message to slow the spread of the Coronavirus	.837	.700
	I will engage in social distancing to slow the spread of the Coronavirus	.788	.621
	I will avoid non-essential travel	.867	.751
	I will avoid social gatherings to slow the spread of Coronavirus	.869	.755
	I will practice good hygiene	.871	.759
		Eigenvalue	3.586
	% of Total Variance	71.713	
	Cronbach's α	.895	
Emotional Management	I feel calmer	.919	.844
	I feel better	.932	.868
	I now think about things in a more positive way	.911	.830
	I can now deal with my anxieties in a positive manner	.919	.845
	I now have a more positive attitude about how to manage anxiety	.928	.861
		Eigenvalue	4.248
	% of Total Variance	84.958	
	Cronbach's α	.956	
Prosocial Behavior^a	What is the likelihood of you helping someone in need (e.g., older neighbor) during the Coronavirus Outbreak?	.718	.515
		.781	.610
	What is the likelihood of you contacting others to provide comfort (i.e., emotional support) during the Coronavirus Outbreak?	.833	.694
		.832	.693
	What is the likelihood of you lending your knowledge and ability (e.g., about technology, etc.) to someone who is in need during the Coronavirus Outbreak?	.870	.757
		.856	.733
	Eigenvalue	4.003	
	% of Total Variance	66.721	
	Cronbach's α	.899	

*a - For the measure of Prosocial Behavior, all statements were measured using two items (Not very likely/Very likely, and Not very probable/Very probable).

To test the two-stage mediator model, the indirect effect of gratitude on compliance through emotion management and prosocial behavior ($H_{1a} - H_{1c}$) was assessed. We conducted a mediation analysis using bootstrapping methods (Preacher & Hayes, 2004; Zhao, Lynch & Chen, 2010) based on Hayes's (2013) PROCESS macro. Given that the statistical evidence regarding the total indirect effect may be questionable in a multiple mediator model due to multicollinearity and competition among mediators (Hayes, 2009; MacKinnon, 2008), we followed the recommendation of Hayes (2013) and focused on interpreting specific indirect effects.

The analysis of the two-stage mediator model revealed that participants' levels of emotion management increased as feelings of gratitude increased (10,000 bootstrap samples, $\beta = .93$, $SE = .29$; bias-corrected bootstrap 95% confidence interval [CI] = .35 to 1.52). Higher levels of emotion management, in turn, were associated with a higher level of intent to engage in prosocial behaviors ($\beta = .28$, $SE = .09$; 95% CI = .10 to .45), which translated into a greater likelihood to comply with government guidelines to slow the spread of COVID-19 ($\beta = .18$, $SE = .07$; 95% CI = .04 to .32). The direct effect of gratitude on compliance behavior was statistically non-significant ($\beta = .25$, $SE = .20$; 95% CI = -.16 to .65). See Figure 2.

To alleviate the reverse causality concern stemming from the fact that the mediators were measured after the dependent measure, we followed Judd and Kenny’s (2010) recommendation and estimated the model twice for each mediator separately, once with the dependent measure as a mediator and once with the mediator as a dependent measure. The results of a two-stage mediator model with compliance as the second mediator and emotion management as the dependent measure showed

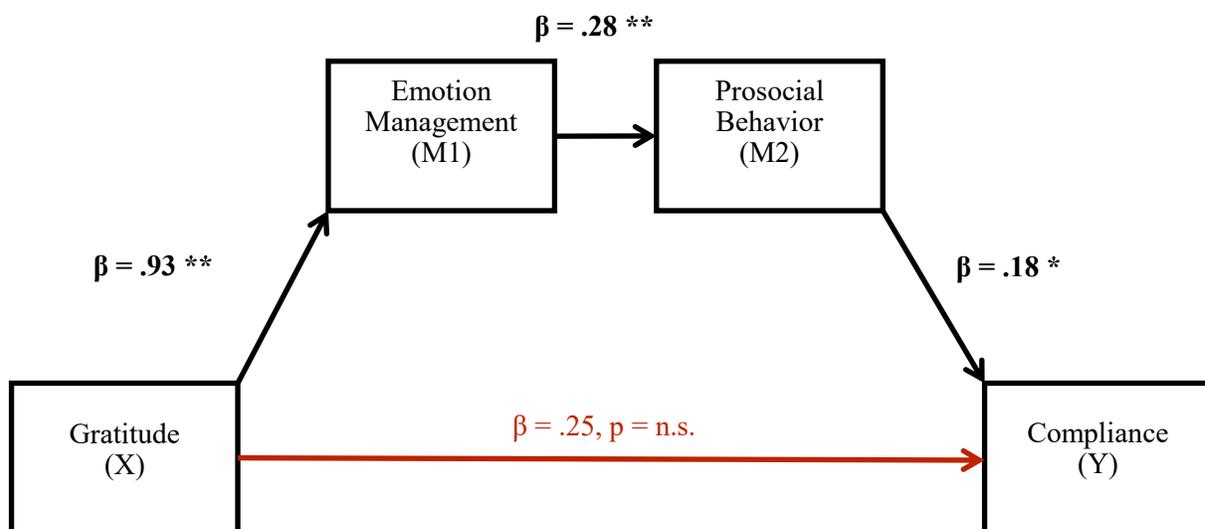
a non-significant indirect effect of gratitude on emotional management through prosocial behavior and compliance (95% CI = -.01 to .04). Similarly, when running a reversed model with prosocial behavior as the dependent measure, the indirect effect of gratitude on prosocial behavior through emotional management and compliance became non-significant (95% CI = -.06 to .01). Thus, reversed causality does not appear to be a significant issue, given that the results of the

TABLE 2:
Mediation Analysis Table (Study 1)

Study 1	Antecedent	Consequent											
		M_1 (Emotion Management)				M_2 (Prosocial Behavior)				Y_i (Compliance)			
		Coeff.	SE	LLCI	ULCI	Coeff.	SE	LLCI	ULCI	Coeff.	SE	LLCI	ULCI
	X (Gratitude)	.94**	.29	.35	1.52	-.50	.28	-1.05	.05	.25	.20	-.16	.65
	M_1 (Emotion Management)	-	-	-	-	.28**	.09	.10	.45	-.10	.07	-.23	.04
	M_2 (Prosocial Behavior)	-	-	-	-	-	-	-	-	.18*	.07	.04	.32

NOTE. - * $p < .05$, ** $p < .01$

FIGURE 2:
Two-Stage Mediator Model (Study 1)



* $p < .05$
** $p < .01$

reversed model do not resemble those of the specified model. We also performed variance inflation factor (VIF) tests for all the predictor variables and found that the scores were lower than 5 ($VIF_{\text{gratitude}} = 1.08$, $VIF_{\text{emotion management}} = 1.15$, $VIF_{\text{prosocial behavior}} = 1.09$), suggesting multicollinearity is not a concern (James et al., 2013).

Discussion

Results from Study 1 demonstrate that emotion management serves as a mediator between feelings of gratitude elicited by an advertisement and prosocial behavior, and that prosocial behavior can lead to intentions to comply with guidelines to slow the spread of COVID-19. Study 1 provides insight into how advertising messages can help individuals address mental health concerns during catastrophic incidents like pandemics. Negative emotions, such as anxiety, can be down-regulated or mitigated by positive emotions, such as gratitude. In turn, once emotion management efforts are activated, which we view as a broadening mechanism, individuals may become more inclined to engage in behaviors that consider the well-being of others.

Enlisting social coordination might also help to address environmental threats (Gelfand et al., 2011). Given how aggressively the coronavirus spread throughout global populations, some societies might benefit from adopting a modicum of conformity and coordination. To reflect this, social marketing advertising might be made more effective in getting individuals to prioritize group goals over personal goals by pursuing an other-orientation in messaging. Such an orientation would emphasize the responsibility the individual has to the group. Consequently, as individuals attempt to mitigate anxiety levels during the coronavirus outbreak by experiencing feelings of gratitude elicited by an advertisement, social marketing messages that promote an other-orientation might be more effective in garnering compliance from individuals.

STUDY 2

Pretest

Study 2 investigated whether priming an “other” orientation would help stimulate compliance behaviors as outlined in social marketing messages. Before performing Study 2, we conducted a pretest to test the efficacy of a manipulation that primed an other-orientation. Study participants included 35 individuals from MTurk. All participants were from the United States (mean age = 30; 32% female) and belonged to the Millennial and Gen Z cohorts. Participants viewed one of two randomly assigned advertisements. Both contained information from the White House’s “Coronavirus Guidelines for America;” however, in the “other” condition, the following verbiage preceded the guidelines:

“We are all in this TOGETHER. Think of the well-being of others.
#InThisTOGETHER”

In contrast, the control condition contained the following text:

“Make sure you are INFORMED. Get the facts about coronavirus now.
#CoronavirusFACTS

After viewing one of the ads, participants responded to statements using a 7-point Likert scale (1 – Strongly disagree, 7 – Strongly agree) as manipulation check measures (e.g., “The advertisement explicitly urged me to consider the well-being of others,” “I understand we all need to cooperate to slow the spread of the coronavirus”; $r = .57$, $p < .01$). As expected, those in the “other” condition ($M_{\text{other}} = 6.3$) indicated that the advertisement “urged considering the needs of others” and “the importance of cooperation” more than those in the control condition ($M_{\text{control}} = 4.4$; $t(32) = 3.36$, $p < .01$).

Design and Procedure

Study 2 was a two-factor (Gratitude: present/absent) X (Other: present/absent) between-subjects design. We collected data from April 2-8, 2020. Like Study 1, participants were first told to spend at least three minutes writing about any anxieties or concerns about the coronavirus outbreak. Following the anxiety-

inducing exercise, participants were randomly assigned to the same two ads (gratitude vs. control) from Study 1.

Next, participants were randomly assigned to view the ad (from the pretest) regarding the White House's "Coronavirus Guidelines of America," which either primed an "other" orientation or did not. The campaign had been extended by this time and was now entitled "Coronavirus Guidelines for America: 30 Days to Slow the Spread." However, the verbiage and guidelines for slowing the spread of the virus remained the same. Participants were asked the same items from Study 1 to assess compliance.

Sample

Participants ($n=167$) were recruited from two sources, MTurk ($n=62$; average age = 29; 36% female) and Qualtrics ($n=105$; average age = 30; 51% female), in exchange for monetary compensation. All participants belonged to the Millennial and Gen Z cohorts (mean age = 30; min age = 18; max age = 39); 45% were female. To ensure that our results were not affected by potential sample bias and data quality issues, as noted in Smith et al. (2016), we collected data from both MTurk and a highly regarded commercial firm, Qualtrics. There were no statistically significant differences between these two sources, and their data were combined following Edgington's (1972) and Rosenthal's (1978) guidelines.

Results

Similar to Study 1, participants in the gratitude condition perceived higher levels of gratitude ($M_{\text{Gratitude}} = 5.58$) than did those in the control condition ($M_{\text{Control}} = 4.27$; $t(165) = 6.44$, $p < .001$), indicating a successful manipulation of gratitude.

Given that our second manipulation of the other orientation can be significantly influenced by conformity to group norms and behaviors, as well as the importance of values by which people live, we also measured belongingness (Malone, Pillow and Osman 2012) and spirituality (Hodge 2003) to use as covariates in our model.

The results of an ANCOVA showed a significant two-way interaction of the gratitude and other-orientation on compliance ($F(1,161) = 6.24$, $p < .05$), with participants in the gratitude-present + other-present condition indicating a greater intent to comply with government guidelines to slow the spread of COVID-19 ($M_{\text{Gratitude-present+Other-present}} = 6.45$) than did those in the gratitude-present + other-absent condition ($M_{\text{Gratitude-present+Other-absent}} = 5.88$; $F(1,161) = 5.22$, $p < .05$). This result lends support for H_2 , which predicted that as individuals make attempts to mitigate anxiety levels by experiencing feelings of gratitude, social marketing messages which promote an other-orientation may be more effective in garnering compliance from individuals (see Figure 3.). There was no effect of the data source on compliance behavior ($F(1,165) = .19$, $p > .65$), and the test of the interaction between data source, gratitude manipulation, and other manipulation also lacked statistical significance ($F(1,159) = .04$, $p > .80$).

Discussion

Findings from Study 2 confirm the efficacy of using an other-orientation in messaging for those experiencing gratitude to garner compliance with guidelines to slow the coronavirus spread. Specifically, individuals who expressed feelings of gratitude elicited by an advertisement and were exposed to social marketing messages promoting an other-orientation, were more likely to comply with COVID-19 guidelines than individuals who expressed feelings of gratitude elicited by an advertisement but were *not* exposed to messaging promoting an other-orientation. Although not predicted, the analysis showed that participants who were not primed with a gratitude message and not exposed to messaging promoting an other-orientation showed greater intent to comply with COVID-19 guidelines than those who were not primed with a gratitude message but were exposed to messaging promoting an other-orientation. This finding underscores the importance of inducing gratitude in concomitance with presenting an other-orientation. Although results suggest that not inducing gratitude and not fostering an other-orientation might be useful for gaining compliance, it ignores the importance of mitigating a potentially

FIGURE 3:
Compliance Behaviors (Study 2)



destructive emotion like anxiety, which can be done by introducing feelings of gratitude.

General Discussion

The coronavirus outbreak heightened anxiety levels in many Americans. This research examined the role that feelings of gratitude elicited by an advertisement could play in individuals' emotional health and well-being during the early outbreak of the coronavirus in the United States and how efforts to manage anxiety might influence social marketing to control the spread of the virus. Findings from both studies in this research demonstrate that feelings of gratitude through ad messaging can help individuals regulate anxiety. Study 1 revealed that emotion management serves as a mediator between feelings of gratitude and prosocial behavior. Prosocial behavior and the motivation to consider the well-being of others then led to intentions to comply with guidelines presented in social marketing messaging to slow the spread of COVID-19. Study 2 investigated the role of enlisting an other-orientation in social marketing messages to stimulate compliance with COVID-19 guidelines. Results confirmed that as individuals attempt to mitigate anxiety by experiencing feelings of gratitude elicited by an advertisement, social marketing messages that promote an other-orientation were more

effective in garnering compliance from individuals than messages that did not encourage an other-orientation.

Conceptual Contributions

Gratitude is an emotion that allows individuals to cherish positive experiences and strengthen relationships (Lyubomirsky et al., 2005). Emotion researchers have established that specific emotions result in distinct meanings and appraisals of the environment and have unique motivational implications on choice and decision-making (Lerner & Keltner, 2000; Arnaud, Curtis & Waguespack, 2018). Thus, researchers suggest that discrete emotions be studied for their unique characteristics and impact on behavior. Findings from this research underscore the efficacy of gratitude in mitigating and undoing the effects of anxiety. Ruminating on positive experiences has adaptive consequences, as it helps to decrease feelings of anxiety.

In addition, this research suggests a process by which regulating an emotion such as anxiety by inducing feelings of gratitude can stimulate prosocial behaviors. According to the broaden-and-build theory (Fredrickson et al., 2000), positive emotions can broaden the scope of attention, cognition, and action, whereas negative emotions narrow cognitive and

behavioral functioning. Augmenting cognition and action in the case of gratitude spurs tendencies to consider the well-being of others. Thus, this research provides some evidence for this broadening effect as individuals who managed their emotions through feelings of gratitude expressed a greater likelihood of helping and engaging in actions to benefit others.

Finally, people may differ in the degree to which they possess a “self” versus “other” orientation. Caring for and helping others and valuing one’s social responsibility embodies an other-orientation (Miyamoto et al., 2018). This research examined how promoting an other-orientation in marketing communications can effectively stimulate compliant behaviors that serve the greater good. Specifically, as individuals mitigated anxiety by experiencing feelings of gratitude, their tendency to adopt prosocial behaviors and attend to others’ needs increased. Subsequently, encouraging emotion management by inducing gratitude and reminding individuals of “community” can be an effective way to increase efforts and behaviors that promote the well-being of society.

Implications for Social Marketing

Anxiety is a growing public health concern in the United States. Findings from this research can be used to consider how anxiety can be managed in challenging situations. Often during extreme anxiety-inducing conditions, anxiety can be debilitating. During the early part of the coronavirus pandemic, the CDC (2020) encouraged individuals to take breaks from watching, reading, or listening to news stories, and to take care of themselves by eating healthy foods, getting adequate sleep, exercising, meditating, and avoiding alcohol and drugs.

Furthermore, mental health experts encourage individuals who have experienced the enervating effects of anxiety in the past to draw on what they have learned in terms of how to manage anxiety successfully. They encourage an individual to separate feelings from the past and remind oneself that he/she has the strength and ability in the present to prevail (Sharp, 2020). This research demonstrated that

individuals can purposely conjure up feelings of gratitude to help in regulating and managing anxiety. One way to cultivate feelings of gratitude is by keeping a gratitude journal. This might involve listing things for which an individual is grateful. This practice works because it consciously and intentionally focuses attention on developing grateful thinking. It also helps guard against taking things for granted (Emmons, 2010). Moreover, another way of approaching gratitude is to think about gratitude for what can be given as opposed to what is received (Emmons, 2010).

Young adults in the Gen Z and millennial generational cohorts were the focus of the studies in this research. Notably, anxiety levels are increasing in these young adults (National Comorbidity Survey, 2017; ADAA, 2020). Rising anxiety levels can first be addressed in young adults by creating a social consciousness around the health concern. For example, Instagram recently joined with The American Foundation for Suicide Prevention to launch a mental well-being campaign using the hashtag #RealConvo, which ignited a closely followed conversation about mental health (Armano, 2019). The collaborators’ long-term objectives were to remove social stigmas regarding mental health and to take a proactive stance in promoting healthy coping behaviors (Armano, 2019).

To foster healthy coping behavior, mental health agencies, as well as private business entities, can develop advertising/media campaigns encouraging people to express gratitude. For example, recently a civil engineering firm initiated a campaign in which they urged employees and clients to adopt an “attitude of gratitude.” They invited employees/clients to share something for which they were grateful and posted gratitude expressions on the firm’s owned media platforms (Withers, 2020). Young adults can be encouraged to do this as well. To reach this segment, organizations can use social media influencers. Research has found that unlike previous generations, young adults prefer their influencers to be peers and ordinary people, rather than celebrities (Hodak, 2018). Thus, marketing campaigns consisting of commercials, online advertisements, and interactive forums that feature prominent social media influencers might be disseminated via social media and

mobile platforms. Ultimately, as individuals enlist dispositions of gratitude, they might be more inclined to engage in prosocial acts and behaviors for the greater good.

This research explored messaging, which invoked an other-oriented approach. Research suggests that collectivism can serve as a natural buffer against disease transmission, and conformity can help in guarding against disease (Cashdan & Steele, 2013). With the rapid spread of COVID-19, individuals could have adopted behaviors that considered others, and effective social marketing messages should underscore the responsibility of the individual to “the group.” Encouraging an “other” orientation might also engender compliance towards other macro issues that affect humankind (e.g., traffic safety) and the environment (e.g., pollution). Similarly, firms, through internal marketing efforts, can encourage employees to adopt an “other-orientation” in certain working situations. This can help foster greater team collaboration, productivity, job satisfaction, and overall improvement of the working environment.

Limitations and Future Research

This research contributes to understanding on how to manage anxiety during stressful circumstances and offers direction on promoting behavior that considers the well-being of others during a societal threat. In this research, gratitude was used as a mechanism to manage anxiety. However, other negative emotions such as sadness, depression, and anger can have deleterious effects on well-being. Exploring ways to manage these emotions can contribute to consumer well-being.

Moreover, since this research only investigated the attitudes and behaviors of millennials and Gen Z, future research might examine the mental health of individuals from other generations/ages during difficult, episodic events (i.e., natural disasters) to gain understanding of how social marketing might assist in ameliorating negative emotions and improving mental health. Further, this research examined the effects of social marketing messaging within the framework of emotion management and regulation. Research

from the behavioral literatures suggests that the way in which a message is framed affects the amount of persuasion it elicits (Smith & Petty, 1996). Thus, additional research might investigate message processing by manipulating framing and enlisting various persuasive techniques. Finally, the current research explored the effect inducing an other-orientation had on an individual’s willingness to comply with behaviors that promoted the well-being of others. Future research might assess actual behavior and its impact on other actions that benefit society (e.g., recycling and using renewable energy, etc.).

Addressing mental health during catastrophic occurrences should be a major priority. Social marketing can be used to raise social consciousness regarding mental health issues during such times. Furthermore, research that investigates how marketing can be used to manage negative emotions, promote mental health, and improve society’s subjective well-being is worthy of exploration.

REFERENCES

- American College Health Association (2016). Reference group executive summary, Retrieved March 31, 2020 from https://www.acha.org/documents/ncha/NCHA-II_FALL_2016_REFERENCE_GROUP_EXECUTIVE_SUMMARY.pdf
- American Psychological Association (2019). Gen Z more likely to report mental health concerns, Retrieved January 8, 2022 from : <https://www.apa.org/monitor/2019/01/gen-z>
- American Psychiatric Association (2019). *What are anxiety disorders*, Retrieved April 8, 2020 from <https://www.psychiatry.org/patients-families/anxiety-disorders/what-are-anxiety-disorders>
- American Psychological Association (2020). New poll: COVID-19 impacting mental well-being: Americans feeling anxious, especially for loved ones; Older Adults are less anxious, Retrieved March 25, <https://www.psychiatry.org/newsroom/news-releases/new-poll-covid-19-impacting-mental-well-being-americans-feeling-anxious-especially-for-loved-ones-older-adults-are-less-anxious>
- Andreasen, A. R. (2002). Marketing social marketing in the social change marketplace.

- Journal of Public Policy & Marketing*, 21(1), 3-13.
- Andreasen, A. R. (2012). Rethinking the relationship between social/nonprofit marketing and commercial marketing, *Journal of Public Policy & Marketing* 31(1), 36-41.
- Anxiety and Depression Association of America (ADAA). 2020. Facts and statistics, <https://adaa.org/about-adaa/press-room/facts-statistics>
- Armano, D. 2019. Brands have the power to chip away at mental health stigma, but they're not using it, Retrieved May 15, <https://www.adweek.com/brand-marketing/brands-have-the-power-to-chip-away-at-mental-health-stigma-but-theyre-not-using-it/>
- Arnaud, A., Curtis, T., & Waguespack, B. P. (2018). Controversial advertising and the role of beliefs, emotions and attitudes: The case of Spirit Airlines. *The Marketing Management Journal*, 28(2), 108-126.
- Barańczuk, U. (2019). The five factor model of personality and emotion regulation: A meta-analysis. *Personality and Individual Differences*, 139, 217-227.
- Baxter A. J., Scott, K. M., Ferrari, A. J., Norman, R. E., Vos, T., & Whiteford, H. A. (2014). Challenging the myth of an "epidemic" of common mental disorders: Trends in the global prevalence of anxiety and depression between 1990 and 2010. *Depression and Anxiety*, 31(6), 506-516.
- Beachum, L. (2020). Seniors are the most vulnerable to coronavirus. You can help protect them. Retrieved on March 11, 2020 from, <https://www.washingtonpost.com/health/2020/03/11/coronavirus-seniors-help/>
- Blue Cross Blue Shield. (2019). A focus on millennial health trends. Retrieved on January 8, 2022 from, <https://www.bcbs.com/the-health-of-america/reports/the-health-of-millennials>
- Cashdan, E. & Steele, M. (2013). Pathogen prevalence, group bias, and collectivism in the standard cross-cultural sample. *Human Nature*, 24(1), 59-75.
- Center for Collegiate Mental Health (2020). 2020 Annual Report. Retrieved on January 8, 2022 from, <https://ccmh.psu.edu/annual-reports>
- Centers for Prevention and Disease Control (2020). Coronavirus (COVID-19). Retrieved from April 1, 2020 <https://www.cdc.gov/coronavirus/2019-ncov/index.html>
- Cherry, J. & Caldwell, J. (2013). Searching for the origins of consumer ethics: Bridging the gap between intuitive values and consumer ethical judgments. *The Marketing Management Journal*, 23(2), 117-133.
- D'Mello S. & Mills, C. (2013). Emotions while writing about emotional and non-emotional topics. *Motivation and Emotion*, 38(1), 1-17.
- Edgington, E. S. (1972). An additive method for combining probability values from independent experiments. *Journal of Psychology*, 80(2), 351-363.
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being daily life. *Journal of Personality and Social Psychology*, 84(2), 377-389.
- Emmons, R. A. (2010). Why Gratitude is Good, Retrieved on April 16, 2020, https://greatergood.berkeley.edu/article/item/why_gratitude_is_good
- Fredrickson, B. L. & Levenson, R. (1998). Positive emotions speed recovery from the cardiovascular sequelae of negative emotions. *Cognition and Emotion*, 12, 191-220.
- Fredrickson, B. L., Mancuso, R. A., Branigan, C., & Tugade, M. M. (2000). The undoing effect of positive emotions. *Motivation and Emotion*, 24(4), 237-258.
- Fredrickson, B. L. (2004). Gratitude, like other positive emotions, broadens and builds, in *The Psychology of Gratitude*, R. A. Emmons and M. E. McCullough, eds. New York: Oxford University Press 145-66.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotion*, 19, 313-332.
- Gelfand, M., Raver J., Nishii, L., Leslie, L., Lun, J., Lim, B., Duan, L., Almaliah, A., Ang, S., & Arnadotr J. (2011). Differences between tight and loose cultures: A 33-nation study, *Science*, 332(6033), 1100-1104.
- GenYOUth (2018). GenYOUth's inaugural youth survey on trends in health and wellness, March 6, <https://www.genyouthnow.org/reports/genyouths-inauguralyouth-survey-on-trends-in-health-and-wellness>

- Grant, A. M., & Gino, F. (2010). A little thanks goes a long way: Explaining why gratitude expressions motivate prosocial behavior. *Journal of Personality and Social Psychology, 98*(6), 946–955.
- Grier, S., & Schaller, T. K. (2020). Operating in a constructed space: Policy actor perceptions of targeting to address U.S. health disparities. *Journal of Public Policy & Marketing, 39*(1), 31–47.
- Gross, J. J. (1998). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality & Social Psychology, 7*, 224–237.
- Gross, J. (2014). *Handbook of emotion regulation*, Guilford Press: New York, New York.
- Harvard Health (2018) Anxiety and physical health. Retrieved on May 9, 2020 from https://www.health.harvard.edu/staying-healthy/anxiety_and_physical_illness
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs, 76*(4), 408–420.
- Hayes, A. F. (2011). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*, New York: Guilford.
- Hodak, B. (2018). As Gen Z reshapes the social media landscape, marketers need to be open to change, Retrieved March 29, <https://www.adweek.com/brand-marketing/as-gen-z-reshapes-the-social-media-landscape-marketers-need-to-be-open-to-change/>
- Hodge, D. R. (2003). The intrinsic spirituality scale: A new six-item instrument for assessing the salience of spirituality as a motivational construct. *Journal of Social Service Research, 30*(1), 41–61.
- Isen, A. M. (2007). Positive affect, cognitive flexibility, and self-control. In Y. Shoda, D. Cervone, and G. Downey (Eds.), *Persons in context: Building a science of the individual department of psychology*, Cornell University, Ithaca, NY, US. Source. Shoda, Yuichi (Ed); Cervone, Daniel (Ed); Downey, Geraldine (Ed).
- James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). *An Introduction to Statistical Learning: With Applications in R*. 1st ed. 2013, Corr. 7th printing 2017 edition. Springer.
- Joseph, D. L., Chan, M. Y., Heintzelman, S. J., Tay, L., Diener, E., & Scotney, V. S. (2020). The manipulation of affect: A meta-analysis of affect induction procedures. *Psychological Bulletin, 146*(4), 355.
- Judd, C. M., & Kenn, D. A. (2010). Data analysis in social psychology: Recent and recurring issues, *The handbook of social psychology*, 5th ed., ed. D. Gilbert, S. T. Fiske and G. Lindzey, New York: Wiley 115–139.
- Kemp, E., & Kopp, S. W. (2011). Emotion regulation consumption: When feeling better is the aim. *Journal of Consumer Behaviour, 10*(1), 1–7.
- Kemp, E., & Kopp, S. W. (2011). Resistance and risk: Examining the effects of message cues in encouraging end-of-life planning. *Journal of Public Policy & Marketing, 30*(1), 100–109.
- Kemp, E., Bui, M., Chapa, S. (2012). The role of advertising in consumer emotion management. *International Journal of Advertising, 31*(2), 339–353.
- Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality, 1*, 141–169.
- Lerner, J. S., & Keltner, D. (2000). Beyond valence: Toward a model of emotion-specific influences on judgment and choice. *Cognition and Emotion, 14*, 473–493.
- Lundstrom, K. (2020). NBC universal creates homemade ‘The more you know’ PSAs for COVID-19,” Retrieved on March 27, 2020, <https://www.adweek.com/tv-video/nbcuniversal-creates-homemade-the-more-you-know-psas-for-covid-19/>
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology, 9*(2), 111–131
- MacKinnon, D. P. (2008). *Introduction to Statistical Mediation Analysis*, New York: Routledge.
- Mahdavi, P. (2020). Party on! Why some young people are more concerned about their reputations than catching coronavirus. Retrieved on October 18, 2020, <https://theconversation.com/party-on-why-some-young-people-are-more-concerned-about-their-reputations-than-catching-coronavirus-135523>

- Malone, G. P., Pillow, D. R., & Osman, A. (2012). The general belongingness scale (GBS): Assessing achieved belongingness. *Personality and Individual Differences, 52*(3), 311–316.
- Markus H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253.
- McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2000). Is gratitude a moral affect? *Psychological Bulletin, 127*, 249–266.
- McCullough, M. E., & Tsang, J-A. (2004). Parent of the virtues? The prosocial contours of gratitude. in *The Psychology of Gratitude*, Robert A. Emmons and Michael E. McCullough, eds. New York: Oxford University Press, 123–141.
- Miyamoto Y., Yoo, J., Levine, C. S., Park, J., Boylan, J. M., Sims, T., Markus, H. R., Kitayama, S., Kawakami, N., Karasawa, M., Coe, C. L., Love, G. D., & Ryff, C. D. (2018). Culture and social hierarchy: Self- and other-oriented correlates of socio-economic status across cultures. *Journal of Personality and Social Psychology, 115*(3), 427–445.
- National Comorbidity Survey (NCS) (2017). Retrieved on March 27, 2020 on <https://www.hcp.med.harvard.edu/ncs/index.php>. Data Table 1: Lifetime prevalence DSM-IV/WMH-CIDI disorders by sex and cohort.
- Petrocchi, N., & Couyoumdjian, A. (2016). The impact of gratitude on depression and anxiety: The mediating role of criticizing, attacking, and reassuring the self. *Self and Identity, 15*(2), 191–205.
- Pew Research (2019). Defining generations: Where Millennials end and Generation Z begins, Retrieved on March 17, 2020 <https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/>
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers, 36*(4), 717–731.
- Raggio, R. D., & Folse, J. A. G. (2009). Gratitude works: Its impact and the mediating role of affective commitment driving positive outcomes. *Journal of the Academy of Marketing Science, 37*(4), 455–469.
- Raggio, R. D., & Folse, J. A. G. (2011). Expressions of gratitude in disaster management: An economic, social marketing, and public policy perspective on post-Katrina campaigns. *Journal of Public Policy & Marketing, 30*(2), 168–174.
- Raghunathan, R., & Pham, M. T. (1999). All negative moods are not equal: Motivational influences of anxiety and sadness on decision making. *Organizational Behavior & Human Decision Processes, 79*, 56–77.
- Rosenthal, R. (1978). Combining results of independent studies. *Psychological Bulletin, 85*(1), 185–193.
- Sharp, J. (2020). Coping with the coronavirus pandemic for people with anxiety disorders, Retrieved on March 26, 2020, <https://www.health.harvard.edu/blog/coping-with-the-coronavirus-pandemic-for-people-with-anxiety-disorders-2020032619327>
- Simpson, H. B., Neria, Y., Lewis-Fernandez, R., & Schneier, F. (2010). *Anxiety Disorders – Theory, Research and Clinical Perspectives*. Cambridge University Press.
- Smith, S. M., & Petty, R. E. (1996). Message framing and persuasion: A message processing analysis. *Personality and Social Psychology Bulletin, 22*(3), 257–268
- Smith, S. M., Roster, C. A., Golden, L. L., & Albaum, G. S. (2016). A multi-group analysis of online survey respondent data quality: Comparing a regular USA consumer panel to MTurk samples. *Journal of Business Research, 69*(8), 3139–3148.
- Tsang, J-A. (2006). Gratitude and prosocial behaviour: An experimental test of gratitude. *Cognition and Emotion, 20*(1), 138–148.
- Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experience. *Journal of Personality and Social Psychology, 86*(2), 320–333.
- Tugade, M. M., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology, 74*(1), 118–128.
- World Health Organization (2020). Coronavirus disease, Retrieved on March 25, 2020, <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>
- White House (2020). Coronavirus guidelines for America, Retrieved on March 25, 2020, <https://www.whitehouse.gov/briefings-state>

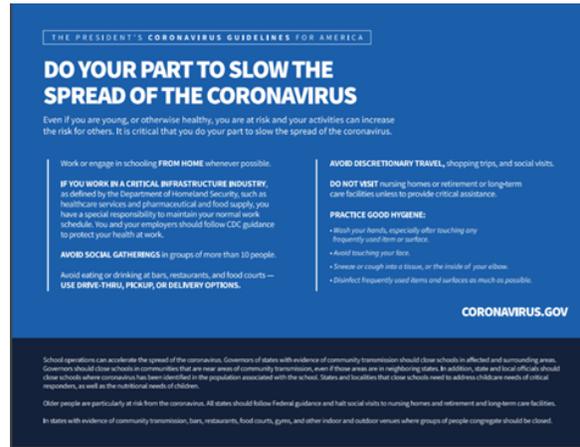
ments/coronavirus-guidelines-america/?utm_source=ods&utm_medium=email&utm_campaign=1600d

Withers, R. (2020). 2020 Gratitude Campaign: Attitude of Gratitude, Retrieved on January 9, 2022, <https://withersravenel.com/2020-gratitude-campaign-attitude-of-gratitude/>

Wrobel, M. (2020). Staying (at home) power: How brands can make a meaningful difference to people’s lives during the coronavirus outbreak, Retrieved on March 30th, <https://econsultancy.com/staying-at-home-power-how-brands-can-make-a-meaningful-difference-to-peoples-lives-during-the-coronavirus-outbreak/>

Zhao, X., Lynch Jr., J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197-206.

Coronavirus Guidelines for America



APPENDIX: Advertisements for Studies 1 & 2 Gratitude Condition



Control Condition

