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Exploring the Persuasion Effects of Threatening Content in COVID-19 Advertising: The Roles of Threat Intensity and Sensation Seeking on Consumer Attitudes

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ABSTRACT

The COVID-19 pandemic has resulted in a wave of advertising activities advocating care for the community in a time of crisis. These COVID-19 ads often feature threatening depictions of the crisis as a persuasion strategy. Hence, the present study explores the persuasion effects of COVID-19 advertising by focusing on threat persuasion. Specifically, by adopting an online experiment with 724 U.S. participants, this study investigates how the threat intensity of crisis depictions featured in COVID-19 ads (low vs. medium vs. high) interact with individual differences in sensation-seeking in order to impact ads and brand attitudes, through the mediating pathways of positive moral emotions (warmth and gratitude) and corporate social responsibility (CSR) authenticity. The results reveal that the high-threat crisis depiction generates the lowest warmth and ad attitudes, whereas the medium-threat crisis depiction yields the strongest gratitude and better brand attitudes than the low-threat crisis depiction, but only for low sensation seekers (LSS). Also, for LSS, exposure to the medium-threat (versus low-threat) crisis depiction increases their gratitude, which leads to higher CSR authenticity, and, eventually results in more favorable ad or brand attitudes. On the contrary, for high sensation seekers, threat intensity does not have an indirect effect on the ad or brand attitudes via warmth, gratitude, and CSR authenticity.

INTRODUCTION

COVID-19 has precipitated a threatening crisis in human history, directly impacting global health and economies (Van Esch et al., 2021). Since the pandemic broke out, brands and businesses have sought to provide emotional support and social coherence to consumers by launching branded advertising campaigns (Verlegh et al., 2021). In these campaigns, brands advocate their positions on the crisis by communicating social responsibility initiatives (e.g., charity donations, community care programs, etc.) to promote a caring image and enhance their reputation (Verlegh et al., 2021).

In brand advertising in response to the pandemic, the ad narratives usually include the depiction of the pandemic, providing a context for storytelling and conveying the reality that people become vulnerable and fragile in facing the situation. Such crisis depictions often incorporate threatening information that varies in intensity. In Hyundai's #ThisIsUs campaign, for example, the video ad displays the frightening scenes of an ambulance sirening its way through an empty street at midnight and doctors wearing full protective gear saving patients in the ICU (HyundaiWorldwide, 2020). However, in some other COVID-19 ads, the crisis depiction features a relatively low to medium level of threat information. Facebook's "Never Lost" campaign shows the lockdown scenes (Facebook, 2020). Heineken's #SocialiseResponsibly campaign depicts people quarantining at home and happily connecting with each other via virtual calls (Heineken, 2020). Given this prevalent employment of crisis depictions with a threat appeal in ads, it raises a question: How threatening should the crisis depiction become in order to achieve persuasion in COVID-19 ads?

Threat persuasion has been affirmed to associate with individual differences, such as the need for cognition (Yoon & Mayer, 2014) and issue involvement (Shin et al, 2017). This is because some individual differences can determine his or her optimal level of threat, which would influence how the threat message is processed (Yoon & Mayer, 2014). Sensation-seeking, defined as an individual's desire for diversity, novelty, and complex sensory experiences (Zuckerman, 1994), has been believed to influence people's optimal level of arousal, which may affect their processing of threat information (Donohew et al., 1998). Yet limited research has examined the moderating role of sensation-seeking in threat persuasion. Thus, the goal of this present study is to explore the effect of individuals' sensation-seeking tendencies on their perception of threat, which may change the effects of crisis depictions in COVID-19 ads.

Taking everything into consideration, this study attempts to expand on the threat persuasion literature into the COVID-19 advertising context, by focusing on the effects of threat intensity of the crisis depiction in the ad (threat intensity: low vs. medium vs. high), with sensation-seeking as a moderator. Guided by the activation model of information exposure (AMIE) and ordered protection motivation model (OPM), this study examines the interaction effect between threat intensity and sensation-seeking on warmth, gratitude, ad attitude, and brand attitude. In accordance with the interaction, this study proposes an integrative framework. As such, this research contends that threat intensity has an indirect effect on ad and brand evaluations of COVID-19 advertising, via impacting warmth, gratitude, and CSR authenticity.

The contributions of this study are three-fold. First, the results confirm the persuasion effects of threat intensity in the context of COVID-19 advertising, by considering the moderating role of individuals' sensation-seeking tendencies. Sensation-seeking is found to moderate the impact of threat intensity on individuals' positive moral emotions (i.e., warmth and gratitude) and evaluations of the ads and brands. Second, the results extend the threat intensity literature by investigating the optimal level of threat in the context of COVID-19 advertising. Third, this study unveils the mechanism under which the interaction between threat intensity and sensation-seeking affect ad and brand attitudes via a serial mediation of positive moral emotions and CSR authenticity.

LITERATURE REVIEW

Threat Intensity of the Crisis Depiction in COVID-19 Advertising

As a persuasion strategy, COVID-19 ads tend to feature various depictions of this global health crisis and/or its impact on people (Dan, 2020). Such crisis depictions often convey negative outcomes of

the crisis (e.g., patients suffering from COVID-19, quarantine, and social distancing) and thus contain threatening information. Threat information remains a crucial determinant of advertising effectiveness (Brennan & Binney, 2010). Threat persuasion, also known as fear appeal, is often employed for issues that have severe consequences for the public (e.g., not taking a vaccine increases the chances of catching COVID-19), and this motivates the change in people's behavior to reduce the risks of the threat (e.g., taking vaccine) (Freimuth et al., 1990). Therefore, increasing threat information, or threat intensity, can influence an individual's information processing and affective responses toward advertising (Dickinson & Holmes, 2008).

Threat intensity is "the level of severity the threat information carries" (Yoon & Tinkham, 2013, p. 35). As threat intensity rises from low to high, people's perceived negativity and fear will increase (Yoon & Tinkham, 2013), and people are likely to become more evasive (Witte & Allen, 2000). It is noteworthy that determining the optimal level of threat has received much scholarly attention, but the results are mixed. One line of research indicated a linear association, that the higher the threat, the greater the persuasion effect (e.g., Witte & Allen, 2000). This is because as threat intensity increases, so does the substantive information value of the content, meaning that a high threat presents more critical information, which can better persuade people to conform to given suggestions than a low or medium threat (Keller & Block, 1996).

However, some other literature discovered that the low or medium threat level is more effective than the high one (e.g., Dickinson & Holmes, 2008; Burnett & Wilkes, 1980). This could be that if the threat is overwhelming, people tend to avoid or counterargue the threat message and turn away from further elaborating the critical information carried by the information, making the desired behaviors less likely (Roskos-Ewoldsen et al., 2004; Tanner et al., 1991). This assertion has been mainly supported by the curvilinear theory (Janis & Feshbach, 1953), which suggests that moderate threat levels outperform both high and low threat levels and therefore are the most optimal threat level.

To best understand these inconsistent findings, Dickinson and Holmes (2008) pointed out that it is critical to examine various levels of threat within a singular study setting. Therefore, the present study attempts to examine the three main levels of threat (low vs. medium vs. high) used in brand advertising amid COVID-19 and investigate how the threat impacts the affective responses and attitudinal evaluations of the ads and brands. Moreover, Yoon and Mayer (2014) maintained that the inconsistent findings on the optimal threat level might be attributed to different individual differences that determine the optimal level of fear. It is because these individual differences affect the processing of threat messages. Therefore, the present research focuses on the moderating role of a major individual difference variable—sensation-seeking tendency (sensation seeking)—on the effects of threat intensity, in the context of COVID-19 ads.

Moderating Effect of Sensation-Seeking

Sensation-seeking refers to an individual's desire for diversity, novelty, and complex sensory experiences (Zuckerman, 1994). It is an individual difference variable with various components, such as thrill, experience seeking, adventure seeking, and susceptibility to boredom (Zuckerman, 2005). It is often used to analyze risky consumer behavior and to segment the market because sensation-seeking differs across people; some prefer higher levels of simulation (i.e., high sensation seekers) than others (i.e., low sensation seekers) (Chang & Tseng, 2013).

According to the activation model of information exposure (AMIE), sensation-seeking influences the processing of threat information (Donohew et al., 1998). The AMIE is historically used to study sensation seekers since it believes that individuals vary in the optimal level of arousal (Quick & Stephenson, 2008). Particularly, high sensation seekers (HSS) tend to seek out stimuli that are novel,

arousing, or emotionally intense (Stephenson et al., 1999), and therefore they prefer messages that have high sensation value (e.g., high-threat messages) (Quick & Stephenson, 2008). In the context of brand advertising amid the pandemic, for HSS, this preference for high-threat messages will neutralize the increasing perceived negativity induced by the messages. Therefore, HSS may not consider high-threat messages as annoying due to their tendency to seek out intense messages to fulfill the need for arousal. A similar pattern may also occur when HSS process medium-threat messages. Hence, they may respond similarly to low-, medium-, and high-threat messages in terms of their attitudinal evaluations of the ads and brands.

On the contrary, LSS (low sensation seekers) are arousal avoiders and tend to avoid messages that are high in sensation value (Bustin et al. 2015). This arousal avoidance tendency will reinforce LSS' perceived negativity from high-threat messages. Therefore, for LSS, high-threat messages are likely to generate the lowest ad responses (i.e., ad and brand attitudes). However, it remains unclear which threat level, low or medium, will yield the most favorable ad responses for these LSS. It is because individuals experience a sequential order to process threat information, according to the ordered protection motivation model (OPM) (Tanner et al., 1991). When facing a threat, people first experience threat appraisal to assess the threat severity and the probability of the threat occurring (Tanner et al., 1991). After threat appraisal, they will then enter the coping appraisal to process the solution to the threat. Given this sequential order, a certain level of threat perception needs to be present for individuals to enter threat and coping appraisals (Yoon & Tinkham, 2013). Notably, if the perceived threat is low, individuals' low perceived negativity will be insufficient to motivate them to elaborate on the threat information and ad message (Yoon & Tinkham, 2013). However, if it is medium, individuals are likely to enter the coping appraisal and elaborate on both the threat and ad message (Yoon & Tinkham, 2013). In this vein, it is likely that the medium-threat message will better motivate LSS to process the branded content in COVID-19 advertising than the low one, and thus yield more favorable ad and brand attitudes. As such, H1 was proposed:

H_1: There is an interaction effect between threat intensity (low vs. medium vs. high) and sensation-seeking (low vs. high) on (a) ad attitude and (b) brand attitude; low sensation seekers generate more favorable ad and brand attitudes toward the COVID-19 ad featuring a medium-threat crisis depiction than a low- or high-threat crisis depiction.

Effect of Threat Intensity on Warmth and Gratitude

Threat information, or fear, is a critical cause of people's perceived severity of the threat (Dillard & Anderson, 2004). Extant literature has demonstrated that threat severity evokes negative emotional responses, such as scary, anxiety, and frightening (Chung et al., 2016). Notably, Tanner et al., (1991) suggested that emotional arousal is a prerequisite for persuasion. That said, emotional responses are necessary for changing attitudes. For instance, Chung et al. (2016) studied college students' processing of anti-smoking ads and revealed that threat severity influences ad persuasion via emotional responses. Therefore, this study assumes that individuals' emotional responses to COVID-19 ads may serve as a meaningful mechanism between the crisis depiction featured in the ads (i.e., threat intensity) and individuals' attitudinal evaluations of the ads and brands. However, limited research has explored how threat information (i.e., threat intensity) induces positive moral emotions, such as warmth and gratitude, especially considering the moderating role of sensation-seeking.

Warmth is a positive emotion triggered by "the direct or vicarious experience of a love, family, or friendship relationship" (Aaker et al. 1986, p.366). It is one of the fundamental dimensions underlying people's perceptions of others (Fiske et al. 2007), and thus captures traits such as being

trustworthy, caring, or helpful (Cuddy et al. 2008). Although warmth is considered primary in personal relationships, recent research suggested that judgments of warmth also elicit consumers' positive perceptions of companies (Fiske et al. 2007).

Gratitude, on the other hand, refers to a positive moral emotion that people experience in response to another person's favor (Bartlett & DeSteno, 2006). Unlike warmth, gratitude is identified as the emotional core underpinning a reciprocal relationship (Becker & Tomes, 1986). Therefore, it can increase consumer tendencies to engage in prosocial behaviors (Raggio & Folse, 2011; Septianto et al., 2020). Extant literature on relationship marketing has also suggested that gratitude plays a critical role in establishing a long-term profitable customer relationship (Palmatier et al., 2009). Given that a company's corporate social responsibility (CSR) engagement in COVID-19 represents its moral values in advancing social well-being (McWilliams & Siegel, 2001), these CSR activities can be regarded as caring and beneficial (Bolton & Mattila, 2015). Thus, a company's communication of social responsibility activities in their COVID-19 ads may induce inferences of warmth and gratitude.

In the context of the pandemic, the high-threat crisis depiction in COVID-19 ads is likely to include overwhelming threat information (e.g., patients suffering from COVID-19, people crying, and doctors working in the ICU). For LSS, as they are arousal avoiders and tend to avoid messages high in sensation value (Bustin et al. 2015), the increasing threat will cause them to generate increasing fear and avoid further processing the ad messages (Tanner et al., 1991). In this vein, this increasing fear may attenuate their perceived warmth and gratitude for the COVID-19 ads. On the contrary, HSS prefer messages high in sensation value (Bustin et al. 2015); thus, they will not generate increasing fear and evasive responses toward the increasing threat. Therefore, their perceived warmth and gratitude for the COVID-19 ads may not be influenced by the increasing threat level of the crisis depicted. As such, we proposed H2:

H_2: There is an interaction effect between threat intensity (low vs. medium vs. high) and sensation-seeking (low vs. high) on (a) warmth and (b) gratitude; low sensation seekers generate lower warmth and gratitude toward the COVID-19 ad featuring a high-threat crisis depiction than a low- or medium-threat crisis depiction.

Warmth, Gratitude, and CSR Authenticity

Authenticity is defined as evaluations or assessments of how "real" or "genuine" something is (Beckman et al., 2009), and has been widely studied across disciplines such as philosophy, sociology, anthropology, consumer research, tourism, and marketing (Fritz et al., 2016; Joo et al., 2019). In marketing research, authenticity refers to "the perceived consistency of a company's behavior that reflects its core values and norms, according to which it is perceived as being true to itself" (Fritz et al., 2016, p. 327). Given that COVID-19 ads primarily focus on advocating a company's CSR initiatives in response to the pandemic, this study is interested in examining the mediating role of a special type of authenticity—*CSR authenticity*—in the serial relationship among threat intensity, positive moral emotions (i.e., warmth and gratitude), and ad/brand attitude.

CSR authenticity is defined as "the perception of a company's CSR actions as a genuine and true expression of its beliefs and behavior toward the society that extend beyond legal requirements" (Alhouti et al., 2016, p. 1243). Notably, previous literature has suggested a direct impact of positive emotions on CSR authenticity. According to the existing literature, authenticity and positive feelings are bidirectionally related (Chen, 2013). Previous empirical work revealed a causal influence of mood on experienced authenticity, in which a positive effect can lead to increases in experienced authenticity (Lenton et al., 2014). For example, Cooper et al. (2018) proved that experienced authenticity is highly associated with feeling good at the moment.

Morality has been indicated as a critical antecedent of authenticity (Moulard et al., 2015). Herein morality refers to the perception that a company demonstrates strong values and principles. The sociology literature argues that authenticity incorporates a society's ethical ideas (Taylor, 1991). Also, management research states that moral development is a requirement of leader authenticity (Walumbwa et al., 2008). Taken together, in the context of COVID-19 advertising, this study assumes that individuals' positive moral emotions (i.e., warmth and gratitude) may lead to increasing perceived CSR authenticity. In other words, if people feel warm and grateful toward a company's COVID-19 ads, these feelings may drive them to perceive the company's CSR initiatives in response to the pandemic as genuine and authentic.

Moreover, CSR authenticity has been proven to positively influence consumers' intentions to support the company, brand relationship quality (e.g., Fritz et al., 2016), brand loyalty (e.g., Alhouti et al., 2016), and purchase intentions (e.g., Joo et al., 2019). In this vein, this study predicts that CSR authenticity may enhance consumers' attitudinal evaluations of the COVID-19 ad and its sponsored brand.

In the final analysis, given the discussions on the interaction effects of threat intensity and sensation-seeking on warmth and gratitude, the effects of positive moral emotions (i.e., warmth and gratitude) on CSR authenticity, and the influence of CSR authenticity on ad/brand attitudes, this study proposes that positive moral emotions and CSR authenticity may serve as the underlying mechanism through which threat intensity influences ad/brand attitudes. Also, sensation-seeking may moderate these serial mediation relationships. Hence, H3 and H4 were proposed:

H_3: Sensation-seeking moderates the effect of threat intensity on (a) ad attitude and (b) brand attitude, via a serial mediation of warmth and CSR authenticity.

H_4: Sensation-seeking moderates the effect of threat intensity on (a) ad attitude and (b) brand attitude, via a serial mediation of gratitude and CSR authenticity.

A conceptual model that summarizes the hypothesized relationships is provided (see Figure 1).
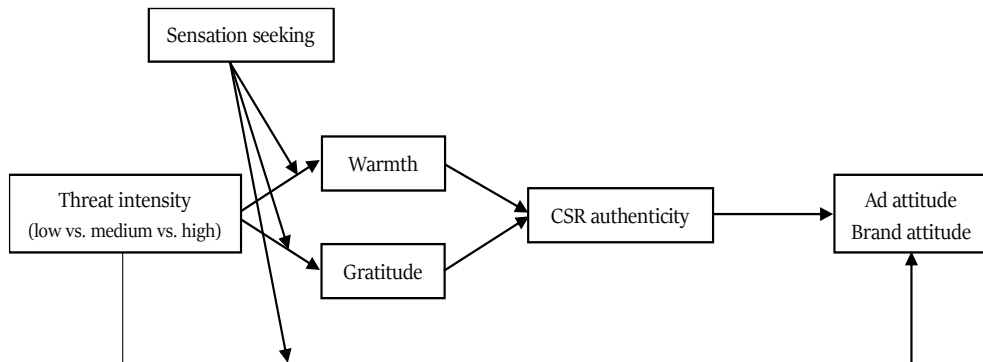

Figure 1. Conceptual model

RESEARCH METHOD

Design and Participants

This study used a one-factor between-subjects design (threat intensity: low vs. medium vs. high) with sensation-seeking as a continuous moderator. It recruited a total of 724 participants, residing in the United States, through Amazon Mechanical Turk (MTurk). The researchers removed the participants who did not pass the quality and attention check questions, leaving 648 subjects' data for the final analysis (M_{age}= 39.20, SD = 12.61; 57% Male; 67% White). One pretest was conducted to select the threat messages.

Pretest

The pretest was conducted to select three images to represent a high-threat crisis depiction, a medium-threat crisis depiction, and a low-threat crisis depiction, respectively. In this way, the researchers followed Schoenbachler and Whittler's (1996) practice of using imagery to manipulate threat intensity, for enhancing ecological validity. First, they searched the existing COVID-19 ads online and identified nine pictures depicting various crisis scenes of the COVID-19 pandemic. Next, they recruited 294 participants using MTurk (M_{age}= 36.10, SD = 10.86; 62% Male; 80% White) and asked each of them to randomly review three pictures out of the nine. To assess threat manipulation, each participant reported their perceived fear of the pictures (Yoon & Tinkham, 2013).

One-way ANOVA revealed that the nine pictures differed significantly in terms of fear (F (8, 876) = 6.14, p < .001). Among them, the researchers identified that a picture of a hospital scene showed the highest fear level (M_{high} = 5.46, SD = 1.51). This picture depicts a doctor giving medical treatments to a patient in the ICU. The doctor wears a respirator mask and protective gear. Another picture depicting two people sitting in a public waiting room with a social distance was rated as having a medium fear level (M_{medium} = 4.84, SD = 1.29). In this scene, they both wear masks and disposable gloves. Moreover, a third picture was rated to have the lowest fear level (M_{low} = 4.18, SD = 1.67). This picture depicts an individual sitting in a home office and greeting a co-worker from the computer screen for a virtual meeting. In this scene, the individual is working from home and doesn't wear a mask.

A second one-way ANOVA confirmed a significant difference among the three pictures on fear (F (2, 291) = 17.75, p < .001). Post hoc tests further revealed that the high-threat picture generated significantly higher fear than the medium-threat (p = .01) and the low-threat one (p < .001). Also, the medium-threat picture significantly generated higher fear than the low-threat picture (p < .01). Therefore, the researchers selected these three pictures for the manipulation of the threat intensity of the crisis depiction (low vs. medium vs. high).

Stimuli

The researchers developed three stimulus ads, using the three crisis scene pictures selected from the pretest. The ads were positioned as corporate ads released by a fictitious automobile company, JAT, in response to the COVID-19 pandemic. Herein, a fictitious brand was used to prevent irrelevant biases regarding real companies from affecting results. Also, an automobile company was chosen because the automobile industry is one of the biggest and most fundamental industries in the US,

contributing 3% to the gross domestic product (GDP). Moreover, cars are high-involvement products, and thus closely related to people's activities during the pandemic.

In each stimulus ad, the researchers included the same branded message to explain how *JAT* responded to the COVID-19 pandemic and offered help to the public: "*Responding to COVID-19: In order to help local communities and vulnerable groups, JAT is donating $5 million to COVID-19 response efforts and non-profits in North America.*" To heighten the ecological validity of the ad, the researchers adopted this branded message from the real-world COVID-19 ads released by major automobile manufacturers such as Ford. A fictitious company logo was also included in each ad.

In sum, each stimulus ad includes three components: (a) a company logo, (b) a corporate message responding to the pandemic, and (c) a picture depicting the threatening scene of the pandemic (i.e., threat manipulation). Specifically, the three stimulus ads stay the same in terms of the company logo and corporate message but vary in terms of the crisis scene pictures (low-threat vs. medium-threat vs. high-threat).

Procedure

In the online experiment, participants consented to the research purposes and were randomly assigned to one of the three experimental conditions. Under each condition, they first reported their sensation-seeking tendencies, general attitudes toward companies' CSR activities, ad skepticism, the prior perceived threat of COVID-19, and product knowledge of cars. They were then directed to view a stimulus print ad. After viewing the ad, they answered questions regarding warmth, gratitude, CSR authenticity, ad attitude, brand attitude, and manipulation check questions. Finally, participants reported demographic information. Upon completion, they were debriefed, thanked, and compensated.

Measures

All the variables were measured with 7-point scales (1 = strongly disagree, 7 = strongly agree). This study adopted the Brief Sensation-Seeking Scale from Hoyle et al. (2002) to measure *sensation-seeking* with eight items (e.g., "I would like to explore strange places.") (Cronbach's a = .92). To assess threat manipulation, it measured *fear* using Dillard and Peck's (2001) scale, including three items (e.g.: "After viewing this ad, I personally feel fearful/afraid/scared") (Cronbach's a = .97).

To measure *warmth*, participants reported their agreement with five statements (when I look at the ad, "I feel warm," "the ad communicates a good-natured message," "the ad has a good intention," "the ad conveys a sentimental message," "the message in this ad is friendly") (Fiske et al., 2007) (Cronbach's a = .88). This study adopted McCullough et al.'s (2002) scale to measure *gratitude*, with three items, such as "I feel grateful to JAT's effort to tackle the pandemic" (Cronbach's a = .94). *CSR authenticity* was measured with three items (e.g., "JAT's CSR actions are genuine"; Alhouti et al., 2016) (Cronbach's a = .91). *Ad attitude* was measured by four semantic differential scales, anchored by "unpleasant/pleasant," "unlikeable/likeable," "irritating/not irritating," and "not interesting/interesting" (Zhang, 1996) (Cronbach's a = .89). *Brand attitude* was assessed by three semantic differential scales, anchored by "dislike/like," "bad/good," and "undesirable/desirable" (Simons & Carey, 2006) (Cronbach's a = .89).

In addition, this study measured participants' pre-existing attitudes toward CSR, ad skepticism, the prior perceived threat of COVID-19, and product expertise of cars as the covariates. *CSR attitude* was measured by three semantic differential scales, anchored by "bad/good," "negative/positive," and "unfavorable/favorable" (Kim et al., 2012) (Cronbach's a = .91). *Ad skepticism* was accessed by four items, adopted from Mohr et al. (1998) (e.g., "Most advertising is very annoying") (Cronbach's

a = .88). Moreover, the study modified Yoon and Mayer's (2014) scale to assess participants' *prior perceived threat of COVID-19* with two items ("COVID-19 is a serious problem" and "I feel vulnerable to the dangers of COVID-19") (Cronbach's a = .67). Last, participants' *product expertise of cars* was measured by two statements, including "how would you rate your knowledge about cars relative to the rest of the population" (1= one of the least knowledgeable people, 7 = one of the most knowledgeable people) and "I know a lot about cars" (1= strongly disagree, 7 = strongly agree) (Park et al., 1994) (Cronbach's a = .90).

RESULTS

Manipulation Checks

The manipulation of threat intensity was successful. One-way ANOVA revealed a main effect of threat intensity on fear (F (2, 645) = 13.53, p < .001). Post hoc tests revealed that the fear scores are significantly different between the low and medium threat levels (M_{low} = 3.08, SD = 2.13; M_{medium} = 3.49, SD = 2.05, p = .04), between the medium and high threat levels (M_{high} = 4.09, SD = 1.93, p < .01), and between the high and low threat levels (p < .001).

Randomization Checks

One-way ANOVA tests were performed to check for randomization. The results show no difference between the experimental groups with respect to age, F (2, 645) = .54, p = .58, gender, F (2, 645) = .17, p = .84, ethical group, F (2, 645) = .37, p = .69, issue involvement with COVID-19, F (2, 645) = .90, p = .41, and COVID-19 knowledge, F (2, 645) = .30, p = .74.

Moderating Effect of Sensation Seeking

Table 1. Effects of threat intensity and sensation seeking on dependent variables

DVs	Low Sensation Seeking (-1SD)			High Sensation Seeking (+1SD)			$F_{interaction}$
	Low Threat	Medium Threat	High Threat	Low Threat	Medium Threat	High Threat	
Ad attitude	5.44	5.49	4.87	5.64	5.61	5.56	4.70[*]
	(0.10)	(0.11)	(0.11)	(0.10)	(0.10)	(0.10)	
Brand attitude	5.29	5.51	5.04	5.69	5.79	5.82	3.36[*]
	(0.10)	(0.10)	(0.11)	(0.10)	(0.10)	(0.09)	
Warmth	5.09	5.15	4.67	5.43	5.45	5.48	4.22[*]
	(0.10)	(0.10)	(0.11)	(0.10)	(0.10)	(0.09)	
Gratitude	4.41	4.99	4.46	5.51	5.51	5.46	3.25[*]
	(0.12)	(0.13)	(0.14)	(0.13)	(0.13)	(0.12)	

Notes. *<0.05, **<0.01, ***<0,001; stand errors in parentheses; means are marginal means; $F_{interaction}$ (2, 638)

H1 and H2 focus on the interaction effects between threat intensity and sensation-seeking on ad attitude, brand attitude, warmth, and gratitude. Given that sensation-seeking is a continuous variable, a series of moderation analyses with 5,000 bootstrapped samples and 95% CI were performed to test these interaction effects, using Model 1 of the PROCESS macro for SPSS (Hayes, 2017). Threat intensity was the independent variable, and sensation-seeking was the moderator. Ad attitude, brand attitude, warmth, and gratitude were input as the dependent variables one at a time.

CSR attitude, ad skepticism, the prior perceived threat of COVID-19, and product expertise were the covariates. The results reveal significant two-way interactions between threat intensity and sensation-seeking on ad attitude $F(2, 638) = 4.70$, $p = .01$, brand attitude $F(2, 640) = 3.36$, $p = .04$, warmth $F(2, 638) = 4.22$, $p = .02$, and gratitude $F(2, 638) = 3.25$, $p = .04$ (see Table 1 and 2 for details).

First, sensation-seeking significantly moderates the effect of low vs. high threat ($B = .19$, $t = 2.87$, $p < .01$) and the effect of medium vs. high threat ($B = .16$, $t = 2.41$, $p = .02$) on ad attitude, but not the effect of low vs. medium threat ($B = .03$, t = .41, $p = .68$). At the -1SD value of the mean of sensation-seeking (at 2.88), high threat generates less favorable ad attitudes than the low one, $p < .001$, and medium threat, $p < .001$. However, no significant difference in ad attitudes was found among the three threat levels at the +1SD value of the mean of sensation-seeking (at 5.92). Therefore, the high-threat crisis depiction generates the lowest ad attitudes for LSS, whereas HSS report similar ad attitudes when exposed to ads with low-, medium-, and high-threat crisis depictions. Thus, H1a is partially supported.

In terms of the interaction effect on brand attitude, sensation-seeking only significantly moderates the effect of medium vs. high threat on brand attitude ($B = .16$, $t = 2.49$, $p = .01$), but not the effect of low vs. medium threat ($B = -.04$, $t = -.63$, $p = .53$) or the effect of low vs. high threat ($B = .12$, $t = 1.92$, $p = .06$). At the -1SD value of the mean of sensation-seeking (at 2.88), medium threat results in more favorable brand attitudes than the high one, $p < .01$. There is no different effect between low and medium threat ($p = .11$) and between low and high threat on brand attitude ($p = .07$). Moreover, no significant difference in brand attitude was found among the three threat levels, at the +1SD value of the mean of sensation-seeking (at 5.92). These results indicate that the medium-threat crisis depiction generates more favorable brand attitudes than the high-threat crisis depiction for LSS, whereas HSS show similar brand attitudes towards the ads with the three threat levels. Therefore, H1b is partially supported.

Moreover, sensation-seeking significantly moderates the effect of low vs. high threat ($B = .15$, $t = 2.47$, $p = .01$) and the effect of medium vs. high threat ($B = .17$, t = 2.59, $p < .001$) on warmth, but not the effect of low vs. medium threat ($B = -.01$, $t = -.18$, $p = .85$). At the -1SD value of the mean of sensation-seeking (at 2.88), high threat generates less warmth than the low threat, $p < .01$, and the medium one, $p < .001$. At the +1SD value of the mean of sensation-seeking (at 5.92), there are no differences between the low and high threat ($p = .89$), between the medium and high threat ($p = .72$), and between the low and medium threat ($p = .83$) on warmth. These results indicate that for LSS, the high-threat crisis depiction generates the lowest warmth. For HSS, they report similar warmth when exposed to ads with low-, medium-, and high-threat crisis depictions. Thus, H2a is supported.

Last, in terms of the interaction effect on gratitude, sensation-seeking significantly moderates the effect of low vs. medium threat ($B = -.19$, $t = -2.40$, $p = .02$), the effect of medium vs. high threat ($B = .16$, $t = 1.96$, $p = .05$), but not the effect of low vs. high threat on gratitude ($B = -.03$, $t = -.38$, $p = .71$). At the -1SD value of the mean of sensation-seeking (at 2.88), medium threat yields stronger gratitude than the low threat, $p < .001$, and high threat, $p < .01$. However, at the +1SD value of the mean of sensation-seeking (at 5.92), no significant difference on gratitude is found among the three threat levels. These results suggest that for LSS, the medium-threat crisis depiction generates the strongest gratitude. However, HSS report similar gratitude when exposed to the ads with the three threat levels. Therefore, H2b is partially supported.

In the final analysis, for LSS, exposure to an ad with a high-threat crisis depiction leads to the lowest warmth and ad attitude. Meanwhile, exposure to an ad with a medium-threat crisis depiction results in the strongest gratitude and better brand attitudes than to an ad with a high-threat crisis depiction. For HSS, on the other hand, no significant effect of threat intensity was found on warmth,

gratitude, ad attitude, and brand attitude, suggesting that HSS respond similarly toward the ads with the three threat levels.

Table 2. Pairwise comparisons of the interaction effects

DVs	Sensation Seeking	Threat Intensity	Threat Intensity	Effect	Std. Error	P-value
Ad attitude	low sensation seeking (-1SD)	low	medium	-0.048	0.137	0.724
			high	-0.615***	0.139	<0.001
		medium	low	0.048	0.137	0.724
			high	-0.567***	0.147	<0.001
		high	low	0.615***	0.139	<0.001
			medium	0.567***	0.147	<0.001
	high sensation seeking (+1SD)	low	medium	0.033	0.142	0.819
			high	-0.048	0.140	0.735
		medium	low	-0.033	0.142	0.819
			high	-0.080	0.137	0.561
		high	low	0.048	0.140	0.735
			medium	0.080	0.137	0.561
Brand attitude	low sensation seeking (-1SD)	low	medium	0.217	0.135	0.108
			high	-0.252	0.138	0.068
		medium	low	-0.217	0.135	0.108
			high	-0.469**	0.144	0.001
		high	low	0.252	0.138	0.068
			medium	0.469**	0.144	0.001
	high sensation seeking (+1SD)	low	medium	0.095	0.140	0.496
			high	0.123	0.138	0.374
		medium	low	-0.095	0.140	0.496
			high	0.028	0.136	0.838
		high	low	-0.123	0.138	0.374
			medium	-0.028	0.136	0.838
Warmth	low sensation seeking (-1SD)	low	medium	0.054	0.131	0.682
			high	-0.419**	0.133	0.002
		medium	low	-0.054	0.131	0.682
			high	-0.472***	0.140	<0.001
		high	low	0.419**	0.133	0.002
			medium	0.472***	0.140	<0.001
	high sensation seeking (+1SD)	low	medium	0.019	0.143	0.886
			high	0.048	0.134	0.721
		medium	low	-0.019	0.143	0.886
			high	0.029	0.132	0.828
		high	low	-0.048	0.134	0.721
			medium	-0.029	0.132	0.828
Gratitude	low sensation seeking (-1SD)	low	medium	0.575***	0.166	<0.001
			high	0.045	0.169	0.788
		medium	low	-0.575***	0.166	<0.001
			high	-0.530**	0.177	0.003
		high	low	-0.045	0.169	0.788
			medium	0.530**	0.177	0.003
	high sensation seeking (+1SD)	low	medium	0.006	0.172	0.974
			high	-0.045	0.170	0.791
		medium	low	-0.006	0.172	0.974
			high	-0.051	0.166	0.760
		high	low	0.045	0.170	0.791
			medium	0.051	0.166	0.760

Notes. Based on estimated marginal means; * < 0.05, ** < 0.01, *** < 0.001.

Moderated Serial Mediations

H3 proposes that sensation-seeking moderates the effect of threat intensity on ad attitude and brand attitude, via a serial mediation of warmth and CSR authenticity. To test H3, the researchers conducted a series of moderated mediation analyses with 5,000 bootstrapped samples and 95% CI, using Model 86 of the PROCESS macro (Hayes, 2018). Ad attitude and brand attitude were input as the dependent variables one at a time while sensation-seeking was the moderator. The index of moderated mediation was estimated for the relative conditional indirect effect of threat intensity on ad attitude/brand attitude, via warmth and CSR authenticity. CSR attitude, ad skepticism, the prior perceived threat of COVID-19, and product expertise were included as covariates.

The results reveal that sensation-seeking significantly moderates the serial mediation between threat intensity (low vs. high) and ad attitude, via warmth and CSR authenticity (index of moderated mediation = .03, *BootSE* = .02, CI [.003, .068]). It also moderates the serial mediation between threat intensity (medium vs. high) and ad attitude, via warmth and CSR authenticity (index of moderated mediation = .04, *BootSE* = .02, CI [.007, .069]). No moderated mediation was found between the low (vs. medium) threat and ad attitude (index of moderated mediation = -.002, *BootSE* = .01, CI [-.029, .024]). Specifically, among the LSS (2.88, -1SD of the mean), exposure to the high (vs. low or medium) threat has a negative indirect effect on ad attitude, via decreased warmth and CSR authenticity (see Table 3). However, among the HSS (5.92, +1SD of the mean), threat intensity does not affect ad attitude, through warmth and CSR authenticity.

Sensation-seeking was also found to moderate the indirect effect of low (vs. high) threat (index of moderated mediation = .04, *BootSE* = .02, CI [.004, .077]), and the indirect effect of medium (vs. high) threat (index of moderated mediation = .04, *BootSE* = .02, CI [.008, .082]) on brand attitude, through warmth and CSR authenticity. However, no moderated mediation was found between the low (vs. medium) threat and brand attitude (index of moderated mediation = -.003, *BootSE* = .02, CI [-.034, .028]). Specifically, among the LSS (2.88, -1SD of the mean), exposure to the high (vs. low or medium) threat has a negative indirect effect on brand attitude, via decreased warmth and CSR authenticity. However, for HSS (5.92, +1SD of the mean), threat intensity does not affect brand attitude, via warmth and CSR authenticity. Hence, H3 is partially supported.

H4 proposes that sensation-seeking moderates the effect of threat intensity on ad attitude and brand attitude, via a serial mediation of gratitude and CSR authenticity. To test H4, the researchers performed similar moderated mediation analyses as testing H3. The only difference was that gratitude and CSR authenticity were put as serial mediators.

The results show that sensation-seeking only significantly moderates the serial mediation between low (vs. medium) threat and ad attitude, via gratitude and CSR authenticity (index of moderated mediation = -.03, *BootSE* = .02, CI [-.066, -.007]). No moderated mediation was found on the indirect effect of low (vs. high) threat (index of moderated mediation = -.006, *BootSE* = .02, CI [-.039, .028]) or medium (vs. high) threat (index of moderated mediation = .03, *BootSE* = .02, CI [-.004, .063]) on ad attitude, via gratitude and CSR authenticity. Particularly, among the LSS (2.88, -1SD of the mean), exposure to the medium (vs. low) threat level has a positive indirect effect on ad attitude, via increased gratitude and CSR authenticity. Among the HSS (5.92, +1SD of the mean), threat intensity does not influence ad attitude, through gratitude and CSR authenticity.

A similar pattern was revealed in the analyses of brand attitude. Sensation-seeking only significantly moderates the serial mediation between low (vs. medium) threat and brand attitude, via gratitude and CSR authenticity (index of moderated mediation = -.04, *BootSE* = .02, CI [-.073, -.007]), but not the indirect effect of low (vs. high) threat (index of moderated mediation = -.006, *BootSE* = .02, CI [-.045, .031]), or medium (vs. high) threat (index of moderated mediation = .03, *BootSE* = .02, CI [-.005, .072]) on brand attitude. Also, among LSS, exposure to the medium (vs.

low) threat level generates stronger gratitude and CSR authenticity, which in turn, enhances brand attitude. However, for HSS, threat intensity does not affect brand attitude, via gratitude and CSR authenticity. Thus, H4 is partially supported.

Table 3. Indirect paths of threat intensitity (low vs. Medium vs. High) on ad/brand attitude

Moderator		Effect (SE)	LLCI	ULCI
Indirect effects of low (vs. medium) threat → warmth → CSR authenticity → ad attitude				
Sensation seeking	-1 SD (2.88)	0.012 (0.031)	-0.048	0.074
	+1SD (5,92)	0.004 (0.024)	-0.041	0.053
Indirect effects of low (vs. high) threat → warmth → CSR authenticity → ad attitude				
Sensation seeking	-1 SD (2.88)	-0.090 (0.043)	-0.179	-0.012
	+1SD (5,92)	0.010 (0.022)	-0.031	0.055
Indirect effects of medium (vs. high) threat → warmth → CSR authenticity → ad attitude				
Sensation seeking	-1 SD (2.88)	-0.102 (0.041)	-0.188	-0.027
	+1SD (5,92)	0.006 (0.022)	-0.038	0.050
Indirect effects of low (vs. medium) threat → warmth → CSR authenticity → brand attitude				
Sensation seeking	-1 SD (2.88)	0.013 (0.037)	-0.057	0.088
	+1SD (5,92)	0.005 (0.027)	-0.046	0.058
Indirect effects of low (vs. high) threat → warmth → CSR authenticity → brand attitude				
Sensation seeking	-1 SD (2.88)	-0.104 (0.048)	-0.207	-0.018
	+1SD (5,92)	0.012 (0.025)	-0.038	0.061
Indirect effects of medium (vs. high) threat → warmth → CSR authenticity → brand attitude				
Sensation seeking	-1 SD (2.88)	-0.117 (0.050)	-0.225	-0.031
	+1SD (5,92)	0.042 (0.029)	-0.004	0.106
Indirect effects of low (vs. medium) threat → warmth → CSR authenticity → ad attitude				
Sensation seeking	-1 SD (2.88)	0.106 (0.040)	0.034	0.190
	+1SD (5,92)	0.001 (0.022)	-0.042	0.047
Indirect effects of low (vs. high) threat → warmth → CSR authenticity → ad attitude				
Sensation seeking	-1 SD (2.88)	0.008 (0.043)	-0.076	0.096
	+1SD (5,92)	-0.008 (0.025)	-0.058	0.043
Indirect effects of medium (vs. high) threat → warmth → CSR authenticity → ad attitude				
Sensation seeking	-1 SD (2.88)	-0.098 (0.044)	-0.188	-0.012
	+1SD (5,92)	0.009 (0.022)	-0.055	0.033
Indirect effects of low (vs. medium) threat → warmth → CSR authenticity → brand attitude				
Sensation seeking	-1 SD (2.88)	0.117 (0.044)	0.035	0.207
	+1SD (5,92)	0.001 (0.025)	-0.047	0.050
Indirect effects of low (vs. high) threat → warmth → CSR authenticity → brand attitude				
Sensation seeking	-1 SD (2.88)	0.009 (0.047)	-0.082	0.102
	+1SD (5,92)	-0.009 (0.028)	-0.065	0.044
Indirect effects of medium (vs. high) threat → warmth → CSR authenticity → brand attitude				
Sensation seeking	-1 SD (2.88)	-0.017 (0.052)	-0.218	-0.013
	+1SD (5,92)	0.010 (0.024)	-0.059	0.035

Notes. Standard error (SE) and coefficient intervals (CI) were estimated using 5,000 bootstrap samples. Bolded relative indirect effects indicate significant effect as confidence interval does not include zero.

DISCUSSION

The present study attempts to extend the threat persuasion literature into the COVID-19 advertising context, by examining the persuasion effects of the threat intensity of pandemic depictions in the ad (threat intensity: low vs. medium vs. high) and considering individuals' sensation-seeking tendencies as a moderator. Particularly, this study explores the interaction effect between threat intensity and sensation-seeking on warmth, gratitude, ad attitude, and brand attitude. The results reveal the mechanism explicating how this interaction effect influences ad and brand attitudes via a serial mediation of positive moral emotions (i.e., warmth and gratitude) and CSR authenticity.

This study reveals that sensation-seeking moderates the effect of threat intensity on warmth, gratitude, ad attitude, and brand attitude. For LSS (low sensation seekers), exposure to an ad with a high-threat crisis depiction leads to the lowest warmth and ad attitude. Meanwhile, exposure to an ad with a medium-threat crisis depiction results in the strongest gratitude and better brand attitude than to an ad with a high-threat crisis depiction. On the other hand, no significant effect of threat intensity was found among the HSS (high sensation seekers). Moderated mediation analyses further suggest that for LSS, exposure to the medium-threat (versus low-threat) crisis depiction increases gratitude, which later leads to higher CSR authenticity and eventually more favorable ad or brand attitude. Meanwhile, exposure to the high-threat (vs. low- or medium-threat) crisis depiction decreases warmth, which later results in lower CSR authenticity and eventually less favorable ad or brand attitude. On the contrary, for the HSS, threat intensity does not have an indirect effect on the ad or brand attitude via warmth, gratitude, and CSR authenticity.

Theoretical Implications

This study generates three critical theoretical contributions. First, sensation-seeking is able to moderate the impact of threat intensity on individuals' positive moral emotions (i.e., warmth and gratitude) and evaluations of the ad and brand. That said, in COVID-19 ads, the effects of threat intensity depend on individual differences in sensation-seeking. HSS respond similarly to the COVID-19 ads with low-, medium-, or high-threat crisis depictions. However, LSS respond differently to the COVID-19 ads featuring various levels of threat information. These findings indicate that sensation-seeking is able to affect the information processing of threat information. It is in line with the sensation-seeking literature that individuals vary in the optimal level of arousal and show different preferences for messages with various sensation values (Bustin et al. 2015; Quick & Stephenson, 2008). Particularly, HSS prefer threatening messages due to their tendency to fulfill the need for arousal. Meanwhile, LSS, as arousal avoiders, tend to avoid threatening messages. Therefore, this research extends the earlier threat persuasion work by identifying the boundary conditions associated with the influence of threat intensity on consumers' evaluations of COVID-19 advertising.

Second, the results extend the threat intensity literature by investigating the optimal level of threat in the context of COVID-19 advertising. Notably, the three main levels of threat (low, medium, and high) were examined, as suggested by Dickinson and Holmes (2008). The results indicate that the high-threat crisis depiction in COVID-19 ads generates the lowest warmth and ad attitude, and the medium-threat crisis depiction yields the strongest gratitude and better brand attitude than the low-threat crisis depiction, but only for LSS. This is because LSS are arousal avoiders, and their arousal avoidance tendency will reinforce their perceived negativity from high-threat messages (Bustin et al. 2015; Quick & Stephenson, 2008). That said, LSS perceive high-threat messages as highly negative due to the strong sensation value carried by those messages. Hence, when exposed to high-threat messages, LSS are likely to generate the lowest ad evaluations (e.g., warmth, ad

attitudes). Also, according to the OPM (Tanner et al., 1991), when exposed to a medium-threat message, LSS are most likely to enter the coping appraisal to systematically process both the threat information and the ad message (Yoon & Tinkham, 2013). In this vein, the medium-threat crisis depiction better motivates LSS to process the CSR message in COVID-19 ads than the low- or high-threat crisis depiction and thus yields more favorable brand attitudes and stronger gratitude. These findings support a stream of threat intensity research (e.g., Burnett & Wilkes, 1980; Dickinson & Holmes, 2008; Janis & Feshbach, 1953) in which moderate threats are the most persuasive and more likely to elicit an adaptive coping response. The findings also reveal that this optimal effect of the medium threat will only work for the LSS, in the context of COVID-19 advertising.

Notably, HSS tend to seek high sensation values to fulfill their need for arousal (Bustin et al. 2015; Quick & Stephenson, 2008). Therefore, they do not react more negatively to high-threatening messages compared to medium- and low-threatening ones. This explains why HSS react similarly toward the ads with the three threat levels in terms of warmth, gratitude, ad attitudes, and brand attitudes.

Third, the present study further contributes to the threat persuasion literature by unveiling the mechanism under which the interaction between threat intensity and sensation-seeking affect ad and brand attitudes, via a serial mediation of positive moral emotions (i.e., warmth and gratitude) and CSR authenticity. The results are consistent with Chung et al.'s (2016) research that threat severity evokes emotional responses and indicates how various levels of threat information induce positive moral emotions such as warmth and gratitude, in COVID-19 advertising. Moreover, CSR authenticity is identified as a mediator between positive moral emotions and ad/brand attitude, confirming Moulard et al.'s (2015) finding that morality is an antecedent of authenticity. This finding is also consistent with the existing authenticity literature that positive effects lead to increases in experienced authenticity (Lenton et al., 2014).

Taking everything into consideration, the present research shows systematic effects on low sensation seekers' responses by comparing three threat levels (low, medium, and high). The findings provide insights into an important but previously unanswered question regarding "When (and for whom) does threat intensity make a difference in COVID-19 ads?" Also, the effects of threat intensity disappear for high sensation seekers. Of the three threat levels, high threat results in the least favorable consumer responses for low sensation seekers while medium threat leads to the most favorable ones.

MANAGERIAL IMPLICATION

The results of this study provide insights into how brands and non-profit organizations can effectively employ the threat appeal when communicating a branded message in response to a public health crisis. Specifically, the findings address a practical question related to the ad message development: How threatening should the crisis depiction become in COVID-19 ads to achieve persuasion?

First, individual differences in sensation-seeking should be considered. For HSS, incorporating various levels of threat will not influence their warm and grateful feelings toward the brand; the same also happens to their ad attitude and brand attitude. However, for LSS, it will be suggested to avoid high-threat crisis depictions in the ad (e.g., people suffering from the crisis, doctors treating the patients, people crying, etc.), as such high-threat information will reduce feelings of warmth and ad attitudes, compared to the low or medium threat. Also, for LSS, it seems most effective to incorporate a medium-threat crisis depiction (e.g., social distancing, lockdown, and people wearing

masks as well as protective gear) since the medium-threat information can generate the strongest grateful feelings toward the brand and better brand attitudes.

Additionally, when adopting a threat appeal in COVID-19 ads, marketers should focus on boosting LSS' positive moral emotions (i.e., warmth and gratitude) and perceived CSR authenticity because these factors serve as the mechanism to influence ad attitude and brand attitude. For instance, marketers can create content on the brand's history of CSR engagement and touching interviews with the community they supported.

It is noteworthy that marketers who adopt threat appeals in COVID-19 ads cannot measure the sensation-seeking tendencies of their target audiences. However, this challenge does not diminish the significance of understanding how sensation-seeking affects the processing of threat information in ads. This is because individual differences in sensation-seeking are a naturally occurring segmentation of the market (Chang & Tseng, 2013). Hence, marketers can enhance results via strategic ad placement as audiences with different degrees of sensation-seeking may have different media habits (Chang & Tseng, 2013). For instance, reality competition TV shows such as Survivor and the newscast offering hard-hitting investigative reports like 60 Minutes may attract audiences with high sensation-seeking personality traits. Programs that are considered relaxing or calm may appeal to low sensation seekers as they are likely to reduce the experienced arousal. Therefore, the results of this study suggest marketers select the right media channels or program contexts to place the ads in response to a public crisis (e.g., the COVID-19 pandemic) with various levels of threat appeals.

LIMITATIONS AND FUTURE RESEARCH

There are several limitations to this work. First, the interaction effect of threat intensity and sensation-seeking was examined within the context of COVID-19. It is unclear whether similar effects will emerge when applied to other types of public crises. Thus, the results should be interpreted with caution. Future research should explore the effect of threat intensity in other public crisis contexts such as environmental crises (e.g., global warming) and economic crises (e.g., economic recession). Second, this study was limited to the examination of sensation-seeking. Other individual difference factors (e.g., information processing style, personality traits) or message characteristics (e.g., informational or entertaining messages) may also play a role in moderating the effect of threat intensity. Future research could explore the effectiveness of other variables that might be relevant to threat persuasion. Finally, this study used a fictitious car brand to control for confounding variables that might affect consumer responses. Future research should replicate this study by employing a different product category and/or a real-world brand, to allow greater generalizability of the findings.

Despite these limitations, this study contributes to enriching the threat persuasion literature by investigating the effect of threat intensity of the crisis depiction in COVID-19 ads, the role of sensation-seeking as a key moderator, and warmth, gratitude, and CSR authenticity as the mechanisms that drive the impact on ad attitude and brand attitude. Understanding the persuasion power of threat information and building theory in this area is an important endeavor for marketing researchers and practitioners to better predict the contexts in which threat content can be used to promote positive ad/brand attitudes and behaviors.

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