An Examination of Information Behaviors Surrounding Controversial Sociopolitical Issues: Roles of Moral Emotions and Gender

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Given the emotion-laden nature and moral considerations of controversial sociopolitical issues, this study examines two key antecedents of publics' information behaviors about controversial sociopolitical issues. We focus on the underresearched emotional dimension by investigating the effects of moral emotions induced by such issues as well as a key demographic factor, gender, on publics' information behaviors toward such issues. Results of this study highlight the significant influence of moral emotions and expand theoretical understanding of public advocacy on highly divisive issues.

Keyword: moral emotions, controversial sociopolitical issues, gender, information behaviors

In today's volatile political climate, controversial sociopolitical issues such as abortion, immigration, and LGBTQ rights have generated heated public debates and shaped public opinion. When exposed to these issues, people of different stances and levels of issue involvement tend to take, select, and give issue-related information differently (Kim & Grunig, 2011; Ni & Kim, 2009). Drawing insights from the situational theory of problem solving (STOPS; Kim & Grunig, 2011), literature on information avoidance (Sweeny, Melnyk, Miller, & Shepperd, 2010), and theories of moral emotions (Rozin, Lowery, Imada, & Haidt, 1999), this study focuses on three key information behaviors—information seeking, avoidance, and forwarding—as the determinants of citizens' engagement in civic and political conversation. This study focuses on these three behaviors for two important reasons. First, they are all active information behaviors (Kim & Grunig, 2011). The active, deliberate,

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and effortful manner in which people seek, avoid, and forward issue-related information tend to greatly affect how they form personal opinions on these polarizing sociopolitical issues, which are fundamental to the formation of public opinion on these various issues (Song, 2016). Second, information avoidance captures people's motivated withdrawal behavior from information that may cause psychological discomfort and unpleasant feelings (Sweeny et al., 2010). This behavior is highly relevant to the study's consideration of negative moral emotions that often emerge in the context of controversial sociopolitical issues.

Controversial sociopolitical issues are issues that provoke ideological conflicts between politically opposing individuals or groups and affect society as a whole (Dyck & Pearson-Merkowitz, 2012; Lee, Oshita, Oh, & Hove, 2014). These divisive and polarizing issues tend to trigger strong emotions and moral judgments from people with different political identifications, religious beliefs, and demographic backgrounds (Nalick, Josefy, Zardkoohi, & Bierman, 2016). The elicited emotional and moral responses can sometimes be strong and salient to the extent that "rational (or analytically derived) perspectives may be dismissed" (Nalick et al., 2016, p. 385). However, a majority of previous studies on information behaviors have focused on cognitive antecedents only (e.g., issue recognition; Kim & Grunig, 2011; Kim, Ni, Kim, & Kim, 2012; Ni & Kim, 2009). Limited research has been undertaken to examine emotional antecedents. Given that controversial sociopolitical issues often evoke strong emotions and moral judgments (Nalick et al., 2016), it is necessary to investigate how moral emotions drive publics' information behaviors toward such issues. Specifically, this study examines contempt, anger, and disgust, known as the CAD hostility triad in the moral emotion literature (Rozin et al., 1999). People likely experience these other-condemning emotions when thinking about divisive sociopolitical issues, including the adversaries who oppose their stance and even block the progress they desire. For instance, people who support gun rights may feel angry toward supporters of gun control as they view gun control as morally wrong.

Furthermore, many controversial issues such as LGBT rights, gender inequality, sexual harassment, and abortion are closely linked to gender. We thus pay special attention to gender as a key demographic antecedent of people's information behaviors in response to controversial sociopolitical issues. Our focus on gender complements previous studies' insights on how other demographic factors such as age and socioeconomic status influence people's communicative actions toward social issues (Kim et al., 2012). Moreover, as extant psychology literature has documented gender differences in experiencing and expressing emotions (e.g., Timmers, Fischer, & Manstead, 2003), this study also investigates how gender and moral emotions may jointly influence publics' information behaviors in today's turbulent sociopolitical climate. The study results contribute to our knowledge on people's emotional experiences in the context of contentious sociopolitical issues. These results also offer communication practitioners with strategic guidelines on how to design effective messages to raise issue awareness and facilitate issue-relevant communication among publics.

Literature Review

Information Seeking, Avoiding, and Forwarding

The situational theory of problem solving (STOPS) has been applied to understand individuals' various communication behaviors surrounding social and political issues (Kim & Grunig, 2011; Kim, Grunig,

& Ni, 2010). According to STOPS, communication action in problem solving (CAPS) describes one's communicative activeness in information selection, transmission, and acquisition as one engages in problem solving (Kim & Grunig, 2011). Each of the three CAPS dimensions contains active and passive components. This study focuses on the active component of CAPS, which is considered less superficial, more deliberate, and more effortful than its passive counterpart (Kim & Grunig, 2011). Specifically, it examines information seeking, avoiding, and forwarding to understand individuals' information acquisition, selection, and transmission about controversial sociopolitical issues.

The nature and tendency of these active information behaviors have important implications for communication theory and practice. To elaborate, the information consumed as a result of an individual's seeking and avoidance behaviors forms the pivotal knowledge inventory that determines his or her stance on an issue. Meanwhile, information forwarding behavior deals with information flow and transmission, which may affect others' views on the issues (Turcotte, York, Irving, Scholl, & Pingree, 2015). Therefore, the three information behaviors are critical to understand how individuals acquire and deal with information related to controversial sociopolitical issues, thereby playing a crucial role in informing public opinion on these issues. They also collectively influence how people selectively expose themselves to and rebroadcast information, potentially enforcing confirmation bias and polarization in the society (Song, 2016).

When facing a sociopolitical issue, individuals make a series of information decisions. They may first attempt to retrieve relevant information from their memory and use this guiding knowledge to understand and evaluate the issue (Kim et al., 2010). When such information is unavailable or inaccessible, they turn to external sources and engage in information-seeking behavior (Kim et al., 2010). Information seeking represents an active information acquisition behavior that is "premeditated" and based on "planned scanning of the environment for messages" on a specific issue or problem (Kim & Grunig, 2011, p. 126).

During this acquisition process, however, not all information is consumed. In other words, people also engage in an information selectivity process. According to STOPS, when people systematically and proactively fend off "certain information in advance by judging its value and relevance" for a given problem or issue (Kim & Grunig, 2011, p. 126), they engage in information forefending. Information forefending represents the active form of information selection (Kim & Krishna, 2014). It occurs when individuals develop and use a subjective sense of relevance in dealing with information (Grunig & Kim, 2017). Thus, it helps distinguish irrelevant from relevant information (Kim & Grunig, 2011). However, people may also be unwilling to receive information that is relevant or even important to know to the extent that they intentionally neglect such information. In particular, people often avoid information that conflicts with their prior cognitive and attitudinal schema or imposes psychological discomfort and negative emotions (Sweeny et al., 2010; Webb, Chang, & Benn, 2013), despite the relevance and importance of such information to problem solving. In this way, individuals may engage in information avoidance, defined as "any behavior intended to prevent or delay the acquisition of available but potentially unwanted information" (Sweeny et al., 2010, p. 341).

Information avoidance "excludes instances in which people simply opt not to seek information"; "rather, it refers to the *purposeful* avoidance of information" (Howell & Shepperd, 2016, p. 1695, emphasis added). In other words, information avoidance should not be interpreted as a mere lack of awareness,

attention, interest, or effort in learning and communicating about a particular issue, such as in the case of being apathetic or indifferent to issue-related information. Instead, it represents a motivated decision to withdraw oneself from such information. Examples of information avoidance include leaving a situation to avoid learning about issue-related information, refusing to ask questions that would solicit such information, and directing others not to reveal such information (Sweeny et al., 2010). As controversial sociopolitical issues tend to provoke conflicting and polarized opinions, individuals may encounter information that contradict with or threaten their existing value systems and self-identities, creating stressful or even painful experiences as well as unpleasant emotions. Therefore, although people may perceive certain information as relevant, they nonetheless would intentionally and actively distance themselves from the information. Meanwhile, the moral emotions of interest to this study—contempt and disgust—tend to make people avoid unpleasant information (Elliot, Eder, & Harmon-Jones, 2013; Hutcherson & Gross, 2011). Therefore, information avoidance is chosen as an outcome herein to capture one's information selectivity under the influence of negative moral emotions.[1]

In addition to information seeking and avoidance behaviors, in which an individual acts as an isolated information decision maker, this study also evaluates individuals' information forwarding behavior, whereby one rebroadcasts information to others in his or her social network (Kim et al., 2010). Based on STOPS' widely adopted definition of information forwarding, information forwarding occurs when "an active information giver forwards information proactively even if no one solicited it—a planned, self-propelled information giving to others" (Kim & Grunig, 2011, p. 127). Publics' information forwarding is indispensable for facilitating social movement and collective action on a sociopolitical issue (Lee & Chan, 2016).

Communication researchers have increasingly studied publics' information behaviors surrounding controversial issues to understand the process of ideology segregation (Song, 2016). Previous studies have empirically examined the cognitive antecedents (Kim et al., 2012) and emotive predictors (Case, Andrews, Johnson, & Allard, 2005; Nabi, 2003) of information behaviors (e.g., seeking, forwarding) in regard to negative social issues or problems (Shin & Han, 2016). Complementing these previous insights, this study tests whether and how the underresearched psychological factor of moral emotions and the key demographic factor of gender affect people's information behaviors pertaining to controversial sociopolitical issues.

Moral Emotions on Information Behaviors

Many debates on controversial sociopolitical issues involve moral judgments about what is right or wrong based on individuals' moral standards. Furthermore, research has suggested that people often become emotional when deliberating on moral issues (Chen, 2010). The violation of one's moral standards

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[1] Note that based on the conceptualizations of information forefending and avoidance, individuals can become motivated to resolve a sociopolitical issue, but the resulting actions they take could be avoiding relevant or even important information on the issue (i.e., information avoidance) owing to the stressful psychological experiences and negative emotions provoked by such information. That is, these motivated individuals may approach some information while avoiding some other information, dependent on the relevance and value of the information as well as the emotional and psychological experiences associated with the information.

is likely to arouse moral emotions such as contempt, anger, and disgust, which in turn affect an individual's moral judgments and behaviors (Romani, Grappi, & Bagozzi, 2013). In the context of controversial sociopolitical issues, when people encounter a triggering event/situation/issue that challenges their moral standards, they tend to experience negative moral emotions (Haidt, 2003). These emotions affect how relevant information is gathered, filtered, recalled, used, or ignored to make judgments (Nabi, 2003).

Moral emotions are emotions linked to the prosocial interest or welfare of society as a whole, or at least of persons other than the judge or agent (Haidt, 2003). They motivate people to do good and avoid doing bad (Tangney, Stuewig, & Mashek, 2007). It is important to note that moral emotions help individuals judge the actions and dispositions of others associated with the situation or issue, not just the issue itself (Hutcherson & Gross, 2011). Additionally, moral emotions are discrete emotions (Hutcherson & Gross, 2011). Discrete emotions are specific feeling states caused by stimulus events or situations, which lead to distinct judgment, action, action tendencies, and coping strategies and goals (Angie, Connelly, Waples, & Kligyte, 2011; Frijda, 1986; Kranzbühler, Zerres, Kleijnen, & Verlegh, 2020). According to the appraisal theory of emotion—a paradigmatic theory in emotion psychology—each discrete emotion can be defined by a unique set of appraisal dimensions (Han, Lerner, & Keltner, 2007). These appraisal dimensions reflect an individual's evaluation of the stimulus event or situation (Fernando, Kashima, & Laham, 2017), trigger particular emotional experiences (Keltner & Horberg, 2015), and lead to various degrees of action readiness (Mulligan & Scherer, 2012).

The appraisal theory of emotion specifies four major appraisal dimensions: (a) certainty (i.e., the extent to which one is certain about the consequences of an event/issue), (b) control (i.e., the degree to which one has control over a situation/issue), (c) responsibility (i.e., whether oneself or another entity is responsible for an event/issue), and (d) legitimacy (i.e., how one perceives one's own morality in a situation/issue; Kranzbühler et al., 2020). Based on these dimensions (especially the dimension of responsibility) and the valance of an emotion, moral emotions can be classified into (1) other-praising emotions, such as gratitude and awe; (2) other-suffering emotions (i.e., negative emotions associated with another person's pain or misfortune), such as sympathy and compassion; (3) self-conscious emotions, such as shame, guilt, and pride; and (4) other-condemning emotions (i.e., negative feelings about the actions or characters of others in the stimulus event/situation/issue), including contempt, anger, and disgust (Haidt, 2003). In this study's context, controversial sociopolitical issues are characterized by highly publicized and impactful events that affect the welfare of society as a whole (Ni & Kim, 2009; Kim et al., 2012). For example, public debates over gun control versus gun rights are triggered and intensified by a series of tragic mass shooting events in the past few years (e.g., the 2018 Stoneman Douglas High School shooting in Parkland, Florida). The divisive nature of controversial sociopolitical issues is such that one considers others who hold opposing views on these issues and events as morally wrong. This study therefore zeroes in on the three other-condemning emotions of the CAD hostility triad. These three emotions—contempt, anger, and disgust—capture an individual's primary reactions triggered by controversial sociopolitical issues that involve moral violations of different domains due to other people's moral misbehavior (Chen, 2010; Rozin et al., 1999).

Two important points should be noted about the conceptualization of the CAD hostility triad. First, the experienced moral emotions of the hostility triad are targeted at others, such as the opposing individuals

or groups in a controversial issue. This, however, should not be confused as these emotions can only be elicited by the target adversaries. Instead, these emotions can be elicited by specific events or situations (i.e., the controversial sociopolitical issues; Haidt, 2003) as these emotions are subject to the "perceived changes, threats, or opportunities in the world" (Haidt, 2003, p. 853). Second, the target of responsibility for an issue or event (self vs. others) is an important factor for categorizing moral emotions. Nonetheless, moral emotions are not only defined and classified by this one appraisal dimension. Other appraisal dimensions (e.g., certainty, legitimacy, control) also determine how an individual evaluates an issue/situation and experiences anger, contempt, or disgust accordingly (Angie et al., 2011; Frijda, 1986). For instance, perceived legitimacy is often associated with anger because having justice or morality on one's side would increase one's control potential over the situation and thus elicit the emotion of anger (Roseman, Antoniou, & Jose, 1996). Also, anger is characterized by high certainty about the consequences of an issue (Lerner & Tiedens, 2006). Both contempt and anger are associated with the appraisal that one feels he or she has relatively high control over the situation, whereas disgust is not (Romani et al., 2013).

Specifically, anger is a reaction to "the violation of autonomy," including freedom and human rights; contempt is a reaction to "the violation of the ethics of the community," such as disruptions of social hierarchy; and disgust is a reaction to "the violation of the ethics of divinity (purity, beauty)" (Fischer & Roseman, 2007, p. 103). In addition to differences in the aforementioned appraisals, anger is evoked by appraisals of an immoral act that directly endangers oneself (i.e., self-relevance of the immoral act). In other words, anger results from perceptions of actual or potential self-harm in conjunction with attributions of intentionality and/or responsibility to the offending other (Tangney et al., 2007). In the present context, for example, individuals who support gun control are likely to feel angry if mass shooting occurs in the country. Their anger arises from the situation when people who own guns can potentially threaten their own safety since there is a lack of governmental regulations. Disgust is evoked mostly by the appraisal that a person is morally untrustworthy. In many cases, such a feeling is triggered by third-party violations that may not directly affect the self (Rozin et al., 1999). For instance, people who do not belong to the LGBTQ community but support their rights and legal protections would feel disgusted if they find LGBTQ individuals are discriminated at various social venues. They experience the emotion of disgust when they observe unfair events that happen to the community. Lastly, contempt is evoked by the appraisal that someone is incompetent, unintelligent, and thus in some way unworthy. Therefore, contempt is often resulted from prejudice such as racism and sexism (Tangney et al., 2007). Furthermore, contempt is characterized as cooler and more subtle than disgust and anger, as it involves an element of indifference or apathy toward the target of contempt (Rozin et al., 1999).

The three moral emotions also differ in their resulting action orientations or coping reactions. As the underlying appraisals of an emotion signal whether an issue/situation threatens or serves one's goal, different emotions would lead to different actions or action tendencies such as approaching or avoiding the issue and the parties involved in it (Kranzbühler et al., 2020). To elaborate, anger tends to promote approach tendencies in the form of direct punishment, such as challenge or attack (Xie, Bagozzi, & Grønhaug, 2015), whereas disgust and contempt involve avoid/withdraw orientation, including distancing from the transgressor (Hutcherson & Gross, 2011). In other words, anger drives people to confront the source (i.e., individual, group, event, or issue) that endangers them, whereas disgust and contempt motivate people to avoid and withdraw from the offending source. Therefore, anger tends to motivate individuals' morally

corrective actions, while contempt and disgust do not (Tangney et al., 2007). Anger may provoke an individual to confront the person at fault to remedy the wrongdoing; it leads to constructive punitive actions that aim to change or redirect the target's behaviors and ultimately maintain or enhance relationships (Romani et al., 2013). By contrast, contempt aims to exclude the offending person from one's social network, thus terminating the relationship (Roseman, Wiest, & Swartz, 1994). In this way, contempt results in destructive punitive actions that are detrimental to relationships in the long run (Romani et al., 2013). Prior research also found that individuals who experienced anger were more likely to judge a scenario as morally permissible, whereas individuals who experienced disgust were less likely to do so (Ugazio, Lamm, & Singer, 2012).

Discrete emotions can be a direct and powerful driver of information behaviors (Case et al., 2005). For instance, anxiety and fear were found to be positively associated with information avoidance and negatively related to information seeking (Case et al., 2005). Anger was found to lead to a preference for retribution-related information, and fear led to a preference for protection-related information (Nabi, 2003). In the context of partisan news programs, Song (2016) found that fear and anger both increased pro-attitudinal news exposure, whereas only anger decreased counterattitudinal news exposure.

This study examines the impact of CAD emotions and investigates their different impacts on publics' information behaviors toward controversial issues. Based on the varied action orientation and appraisal reactions of CAD emotions, anger is related to approach behaviors such as information seeking and forwarding, whereas contempt and disgust are associated with withdrawal and avoidance behaviors such as information avoidance (Elliot et al., 2013).

H1:   *Individuals with a higher level of self-reported anger toward a controversial issue will be (a) more active in information seeking, (b) less active in avoiding information, and (c) more active in information forwarding.*

H2:   *Individuals with a higher level of self-reported contempt toward a controversial issue will be (a) less active in information seeking, (b) more active in avoiding information, and (c) less active in information forwarding.*

H3:   *Individuals with a higher level of self-reported disgust toward a controversial issue will be (a) less active in information seeking, (b) more active in avoiding information, and (c) less active in information forwarding.*

Gender Differences in Information Behaviors

In addition to moral emotions, this study explores how gender affects information behaviors in the context of controversial sociopolitical issues. Gender considerations offer particularly strategic relevance for issue-specific message design and effectiveness in the context of this study because gender is at the center of many controversial issues such as gender inequality, transgender rights, and sexual harassment. Research also indicates differences in how men and women assess and respond to social inequality and

injustice (Sweeney & McFarlin, 1997). It is therefore possible that men and women may react differently to controversial issues and demonstrate different information behaviors about these issues.

Gender differences in information behaviors have been documented. In the context of online communication, Large, Beheshti, and Rahman (2002) found that, compared with women, men were more active searchers who formulated more queries, clicked on more hypertext links per minute, and followed up on more hits. Specifically, men spent less time viewing individual pages, jumped pages more frequently, and were more likely to use a single-word search term for information retrieval than women. In addition, men were found to participate in more conversations and discussions about political issues (Osborn & Mendez, 2010).

Gender differences in emotionality have been similarly well documented in the literature (Timmers et al., 2003). Generally, gender differences in emotional responses have become a robust gender stereotype: Women are believed to be more emotional, or at least more expressive of their emotions, than men (Timmers et al., 2003). Research has suggested that emotionality affects people's willingness to disseminate social information (Peters, Kashima, & Clark, 2009) and the way people seek for information (e.g., negative emotionality leads to fast and superficial seeking; Heinström, 2005). Considering gender differences in emotionality as well as the impact of emotionality on information behavior, this study argues that the impacts of emotions on information behaviors should be more salient among women than men:

H4:   *There will be an interaction between gender and anger such that at identical levels of self-reported anger, women will be (a) more active than men in information seeking, (b) less likely to engage in information avoidance, and (c) more active in information forwarding.*

H5:   *There will be an interaction between gender and contempt such that at identical levels of self-reported contempt, women will be (a) less active than men in information seeking, (b) more active in avoiding information, and (c) less active in information forwarding.*

H6:   *There will be an interaction between gender and disgust such that at identical levels of self-reported disgust, women will be (a) less active than men in information seeking, (b) more active in avoiding information, and (c) less active in information forwarding.*

A conceptual model containing all the proposed hypotheses can be found in Figure 1.
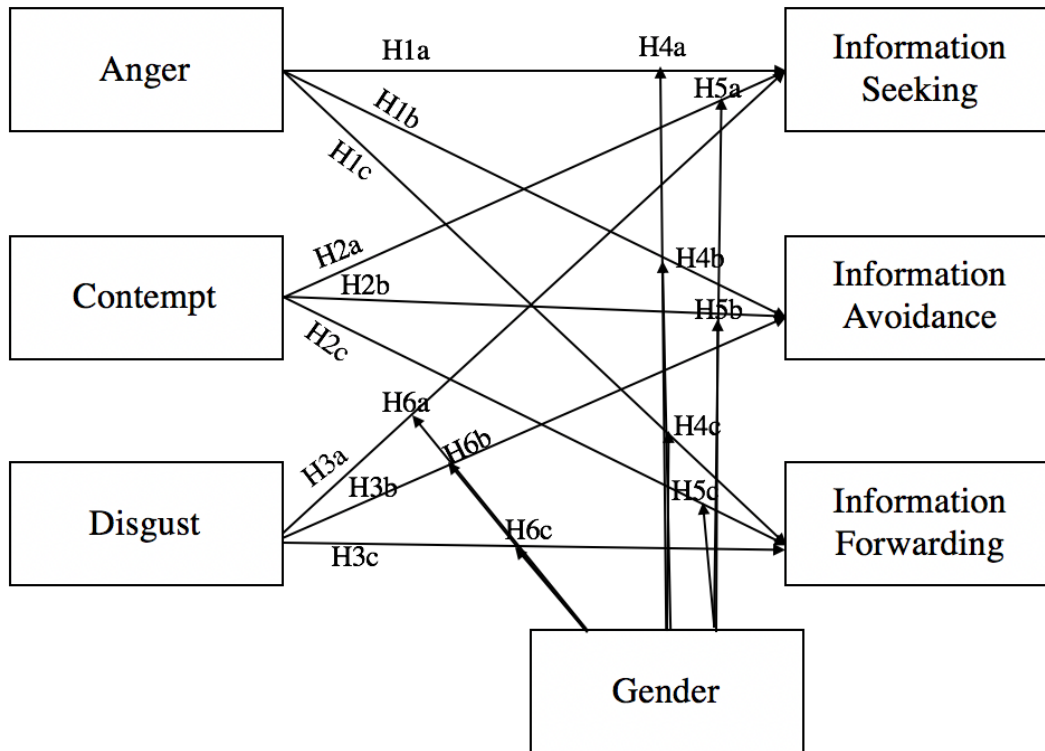
Figure 1. Proposed conceptual model.

Method

Sampling and Participants

This study recruited participants using the panel pool of a global survey research company, Dynata, via its patented sampling platform. Stratified random sampling was adopted to reach a representative sample of the U.S. population in terms of age, gender, race, and ethnicity based on 2017 census data.

The final sample included 870 participants. Among these participants, 48.5% were female and 48.1% were male. Their average age was 49 years (SD = 16.36). Most were White/Caucasian (81.7%), followed by African Americans (7.9%). About 26.6% held a bachelor's degree, followed by 23.5% with some college credit, but no degree. About 16.6% of the participants earned an annual income of $100,000 and above. About half (45.9%) identified themselves as a member of a religious group. Among those who identified themselves as a member of a religious group, many (41.5%) were Christian. When it comes to participants' political self-identification (1 = very liberal, 7 = very conservative), the average self-reported score was 4.13 (SD = 1.79).

Procedure and Measures

An online survey was distributed to participants via Qualtrics in early July 2018. At the beginning of the survey, participants were given the definition of controversial sociopolitical issues: "Society is highly divided on this issue, and this issue tends to generate public disagreement and debates." They were then asked to write about a specific sociopolitical issue they considered controversial. Then, participants were asked to report their experienced contempt, anger, and disgust when thinking about the controversial issue they described. Note that emotions are elicited by triggering events (Haidt, 2003). Thus, the researchers asked the participants to report experienced moral emotions trigged by a controversial sociopolitical issue. This operationalization of capturing and measuring experienced moral emotion is in line with the emotion eliciting approach adopted in prior research, where participants were asked to recall and describe a specific emotion-triggering event (Roseman et al., 1994), moral behaviors (Banerjee, Chatterjee, & Sinha, 2012), or prosocial behavior (Wiwad & Aknin, 2017) before they reported their emotions. In this study's context, as participants were recalling and describing the issue, they were likely to become immersed in the events/situations/experiences associated with the triggering issue so that their experienced moral emotions might be better captured (Briñol et al., 2018). After reporting elicited moral emotions, they were then asked a series of questions about their information behaviors (i.e., information seeking, information avoidance, and information forwarding) about this issue. Finally, demographic information was collected. Participants were compensated with $3.50 for their participation.

The key variables in this study were all measured on a 7-point Likert scale, where 1 represented strong disagreement and 7 represented strong agreement. The emotions of contempt, anger, and disgust were measured using three items adopted from Xie and colleagues (2015). Contempt ($M = 4.13$, $SD = 1.67$) was measured by asking participants the degree to which they felt contemptuous, scornful, and disdainful ($a = .82$). Anger ($M = 5.20$, $SD = 1.64$) was measured by asking participants the degree to which they felt angry, mad, and very annoyed ($a = .86$). Disgust ($M = 4.80$, $SD = 1.81$) was measured by asking participants the degree to which they felt disgusted, revolted, or a "feeling of distaste" ($a = .87$). Political self-identification ($M = 4.13$, $SD = 1.79$) was assessed as a covariable in the data analysis.

Information seeking ($M = 3.70$, $SD = 1.43$) was measured with six items ($a = .91$) from Chen, Hung-Baesecke, and Kim (2017). For example, "I actively search for information about this issue." Information avoidance ($M = 2.67$, $SD = 1.38$) was measured with six items ($a = .92$) from Howell and Shepperd (2016), such as "I refuse to listen to information about this issue." Information forwarding ($M = 4.00$, $SD = 1.52$) was measured with six items ($a = .94$) (Chen et al., 2017). For instance, "I look for chances to share my knowledge and thoughts about this issue."

### Results

Hypotheses Testing

Before conducting the data analysis, two of the authors coded participants' descriptions of a controversial sociopolitical issue based on issue topic. Most of the participants ($n = 382$) described "immigration" as a controversial sociopolitical issue, followed by "Trump's presidency in general" ($n = 103$)

and "others" (n = 102). Therefore, a dummy variable of issue topic was created, with 1 being immigration issue and 0 being others. Because this study examined gender as a key predictor, another dummy variable of issue topic was created, with 1 representing gender-specific issues (n = 146), including abortion, LGBTQ, and gender discrimination issues, and 0 being others.

A series of hierarchical regression analyses were conducted, with information seeking, avoidance, and forwarding as dependent variables, respectively. To minimize the collinearity problem in multiple regressions, all continuous variables (i.e., age, information seeking, avoidance, forwarding, contempt, anger, disgust, and political self-identification) were standardized. Categorical variables were dummy coded, including gender (1 = male, 0 = female), ethnicity (1 = White/Caucasian, 0 = others), religion (1 = has religion, 0 = others), education (1 = bachelor's degree, 0 = others), income (1 = $100,000 and above, 0 = others), issue topic Dummy Variable 1 (1 = immigration issue, 0 = others), issue topic Dummy Variable 2 (1 = gender-specific issues including abortion, LGBTQ, and gender discrimination issues, 0 = others). In each hierarchical regression analysis, two blocks of predictors were included in the equation. Specifically, ethnicity, age, religion, political self-identification, education, income, and issue topic were put in the first block as control variables. Gender, emotions of contempt, anger, and disgust, and their interaction terms were included in the second block.
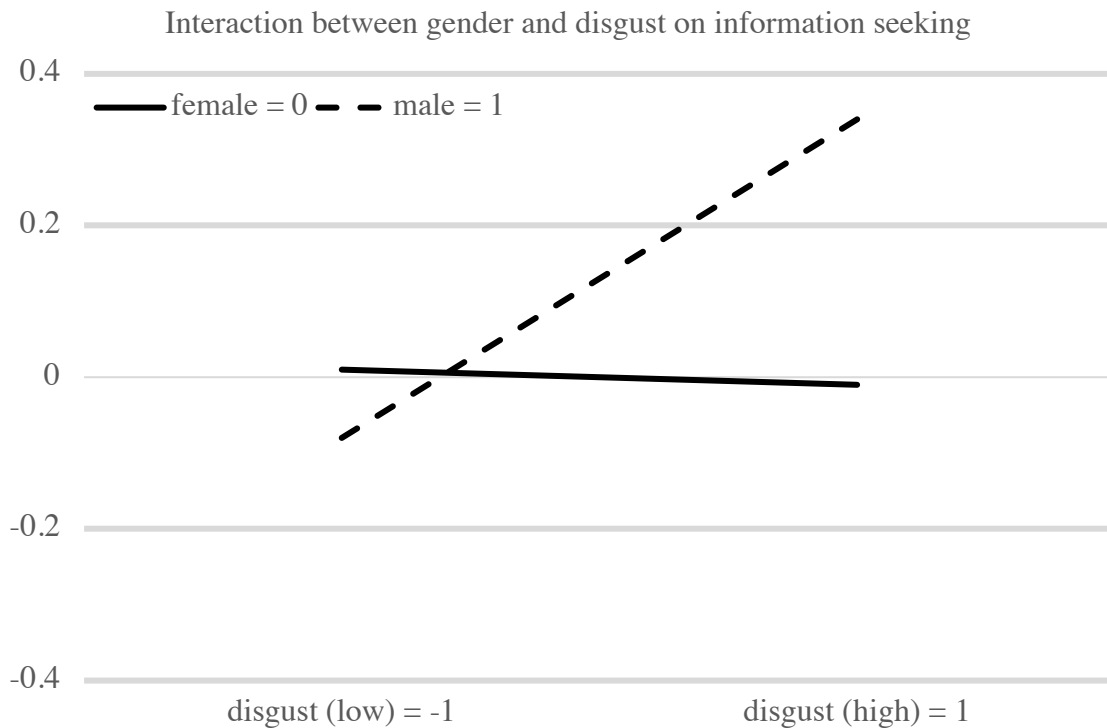
H1(a), H2(a), and H3(a) hypothesized that anger, contempt, and disgust had main effects on information seeking. H4(a), H5(a), and H6(a) hypothesized that there were interaction effects between gender and the emotions of anger, contempt, and disgust, respectively, on information seeking. To test these hypotheses, a hierarchical linear regression analysis was conducted, with information seeking as the dependent variable. In the first block, information seeking was regressed on the seven control variables mentioned earlier, which accounted for a significant amount of variance, R^2 = .053, F(8, 861) = 5.98, p < .001. Political self-identification (B = −.07, t = −2.16, p = .031), age (B = −.16, t = −4.6, p < .001), and issue topic Dummy Variable 2 (with gender-related issue being 1) (B = −.11, t = −3.15, p = .002) all had a significant and negative impact on information seeking. When people recalled issues that were relevant to gender (i.e., LGBTQ, gender discrimination, and abortion), they were less active in information seeking. In the second block, information seeking was regressed on anger, contempt, disgust, gender, and three interaction products, which accounted for an additional 6.6% variance, $\triangle R^2$ = .066, F(15, 854) = 7.66, p < .001. Gender (B = .13, t = 4.03, p < .001) and anger (B = .15, t = 2.05, p = .041) had a significant and positive impact on information seeking. Age (B = −.18, t = −5.37, p < .001) had a significant and negative impact on information seeking. Therefore, only H1(a) was supported.

Significant interactions between gender and anger (B = −.21, t = −2.78, p = .006) and between gender and disgust (B = .22, t = 2.65, p =.008) were found for information seeking. To probe the two-way interaction effects, one standard deviation above and below the mean score of anger was employed to represent the high and low level of anger, respectively. Female participants were more active in information seeking when they experienced a higher level of anger, whereas male participants were more active in information seeking when they experienced a lower level of anger (see Figure 2).

Interaction between gender and anger on information seeking
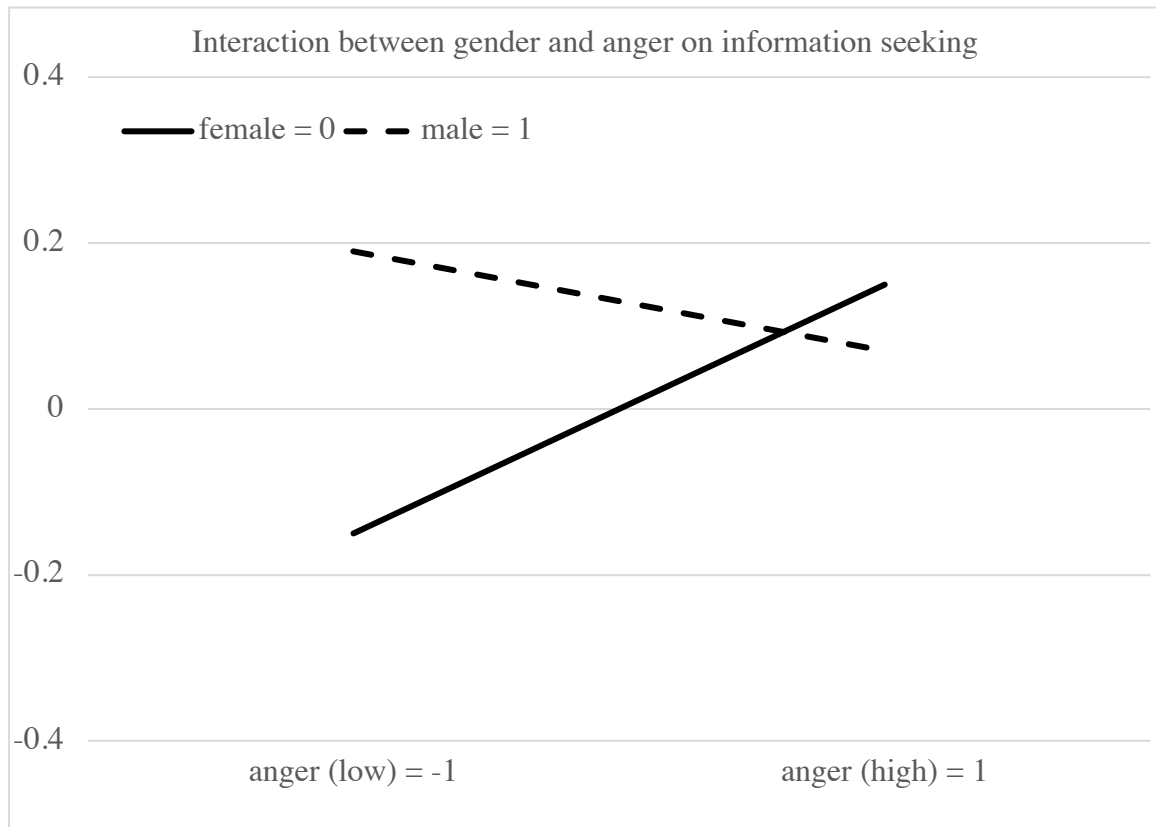
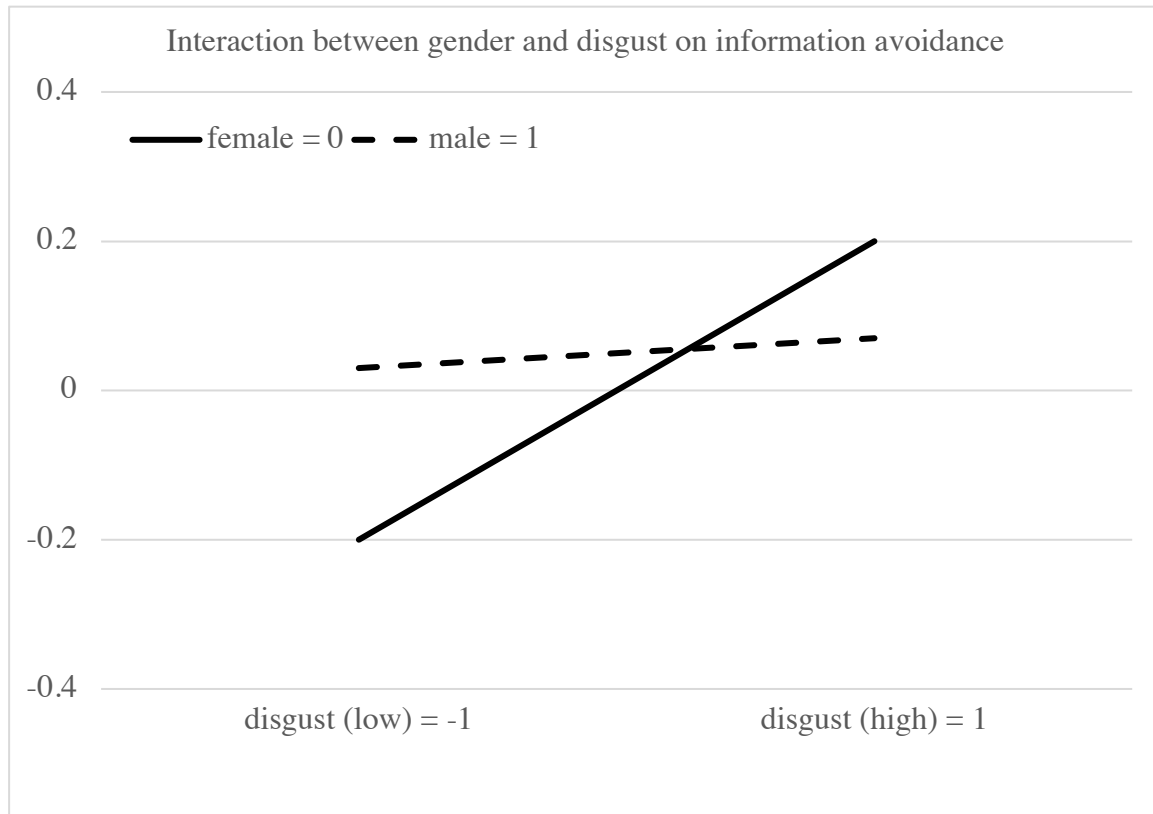**Figure 2. Interaction between gender and anger on information seeking.**

Meanwhile, female participants were more active in information seeking with a lower (vs. higher) level of disgust, whereas male participants were more active in information seeking with a higher (vs. lower) level of disgust (see Figure 3). Therefore, H4(a) and H6(a) were supported.

Interaction between gender and disgust on information seeking

Figure 3. Interaction between gender and disgust on information seeking.

H1(b), H2(b), and H3(b) hypothesized the main effects of anger, contempt, and disgust on information avoidance. H4(b), H5(b), and H6(b) hypothesized interaction effects between gender and the emotions of anger, contempt, and disgust, respectively, on information avoidance. To test these hypotheses, a hierarchical linear regression analysis was conducted with information avoidance as the dependent variable. In the first block, information avoidance was regressed on the seven control variables, which accounted for a significant amount of variance, $R^2 = .096$, $F(8, 861) = 11.44$, $p < .001$. Political self-identification ($B = .18$, $t = 5.23$, $p < .001$), religion ($B = -.09$, $t = -2.78$, $p = .006$), age ($B = -.20$, $t = -5.90$, $p < .001$), and issue topic Dummy Variable 1 ($B = -.11$, $t = -3.11$, $p = .002$), and issue topic Dummy Variable 2 ($B = -.07$, $t = -2.04$, $p = .042$) had significant impacts on information avoidance. In the second block, information avoidance was regressed on anger, contempt, disgust, gender, and three interaction products, which accounted for an additional 3.8% variance, $\Delta R^2 = .038$, $F(15, 854) = 8.85$, $p < .001$. Anger ($B = -.26$, $t = -3.51$, $p < .001$) had a significant and negative impact on information avoidance, whereas disgust ($B = .20$, $t = 2.53$, $p = .012$) had a significant and positive impact on information avoidance. Thereby, H1(b) and H3(b) were supported. Specifically, individuals experiencing a higher anger level were less likely to avoid information, whereas individuals experiencing a higher disgust level were more likely to avoid information. A significant interaction between gender and disgust was also found for information avoidance ($B = -.18$, $t = -2.11$, $p = .035$), supporting H6(b). With the spotlight method, female participants were found more active in information

avoidance with a higher (vs. lower) level of disgust, whereas male participants showed a minimal difference between a higher versus lower level of disgust (see Figure 4).

Figure 4. Interaction between gender and disgust on information avoidance.

H1(c), H2(c), and H3(c) hypothesized the main effects of anger, contempt, and disgust on information forwarding. H4(c), H5(c), and H6(c) hypothesized interaction effects between gender and the emotions of anger, contempt, and disgust, respectively, on information forwarding. The first block of control variables accounted for a significant amount of variance in information forwarding, $R^2 = .037$, $F(8, 861) = 4.13$, $p < .001$. Age had a significant and negative impact on information forwarding ($B = -.13$, $t = -3.59$, $p < .001$). In the second block, with key independent variables explaining additional 8% of variance, $\Delta R^2 = .08$, $F(15, 854) = 7.54$, $p < .001$, results showed gender ($B = .16$, $t = 4.69$, $p < .001$) and anger ($B = .23$, $t = 2.99$, $p = .003$) had positive and significant impacts on information forwarding, thus supporting H1(c).

The interaction between anger and gender was also significant on information forwarding ($B = -.15$, $t = -2.00$, $p = .046$). Specifically, females were more active in forwarding information when they had a higher level of anger, whereas males showed minimum differences in information forwarding between high and low levels of anger. Therefore, H4(c) is supported (see Figure 5; please see Figure 6 for all the supported hypotheses).

Interaction between gender and anger on information forwarding

female = 0 — — male = 1

anger (low) = -1   anger (high) = 1
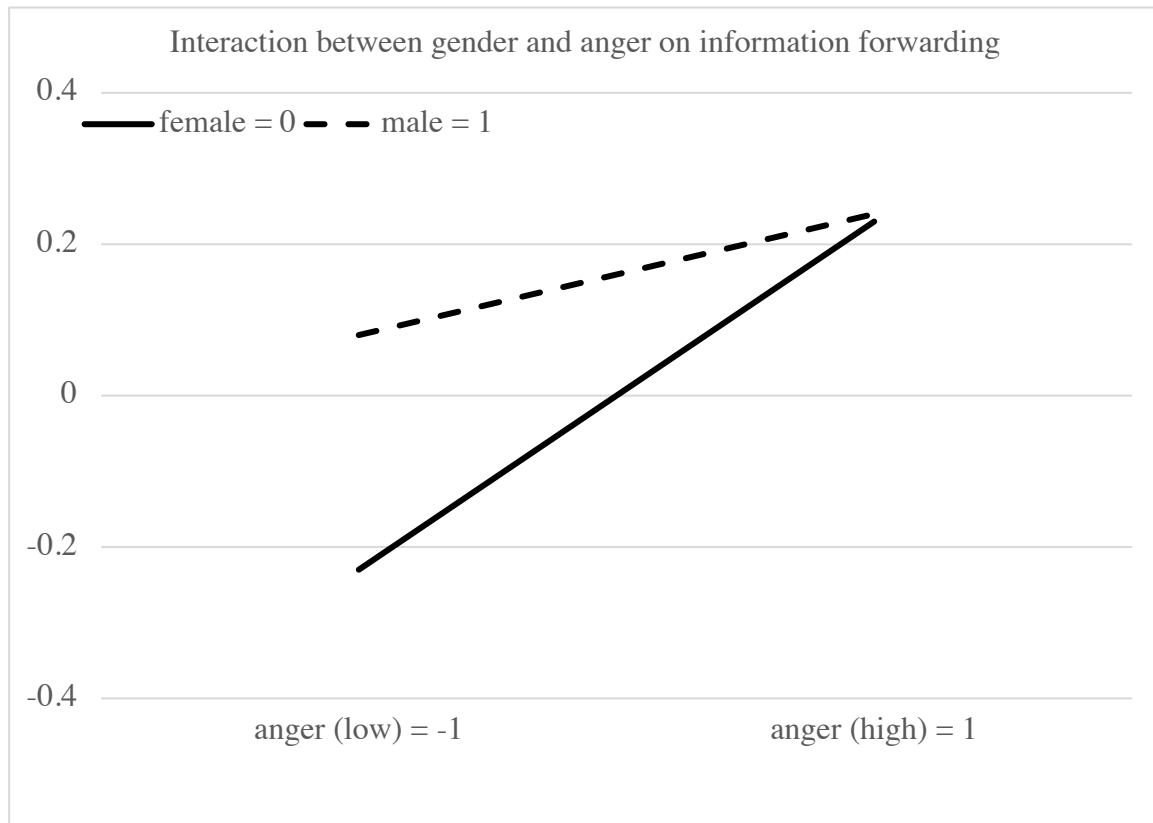
Figure 5. Interaction between gender and anger on information forwarding.

This study expands literature on information behaviors by investigating the impact of moral emotions as psychological antecedents and gender as a key demographic factor on information seeking, avoiding, and forwarding behaviors toward controversial sociopolitical issues. To provide theoretical insights on the underresearched emotional antecedents of information behaviors, this study focuses on moral emotions because information behaviors toward controversial sociopolitical issues tend to involve moral judgement and are emotion driven. Recognizing gender as an important demographic factor, this study also illustrated the interplay between moral emotions and gender, which has not been studied in prior research.

This study provides strategic guidelines for communication professionals in the domains of issue advocacy, especially members of nonprofits, activist groups, and governments. When designing messages to influence publics' information seeking and forwarding behavior on a contentious sociopolitical issue, professionals should consider the emotions that may be aroused by the issue and design messages for males and females differently. Messages tailored based on audience gender can be adopted to strengthen desirable emotions, weaken undesirable emotions, and thereby promote publics' understanding and advocacy about a particular issue.
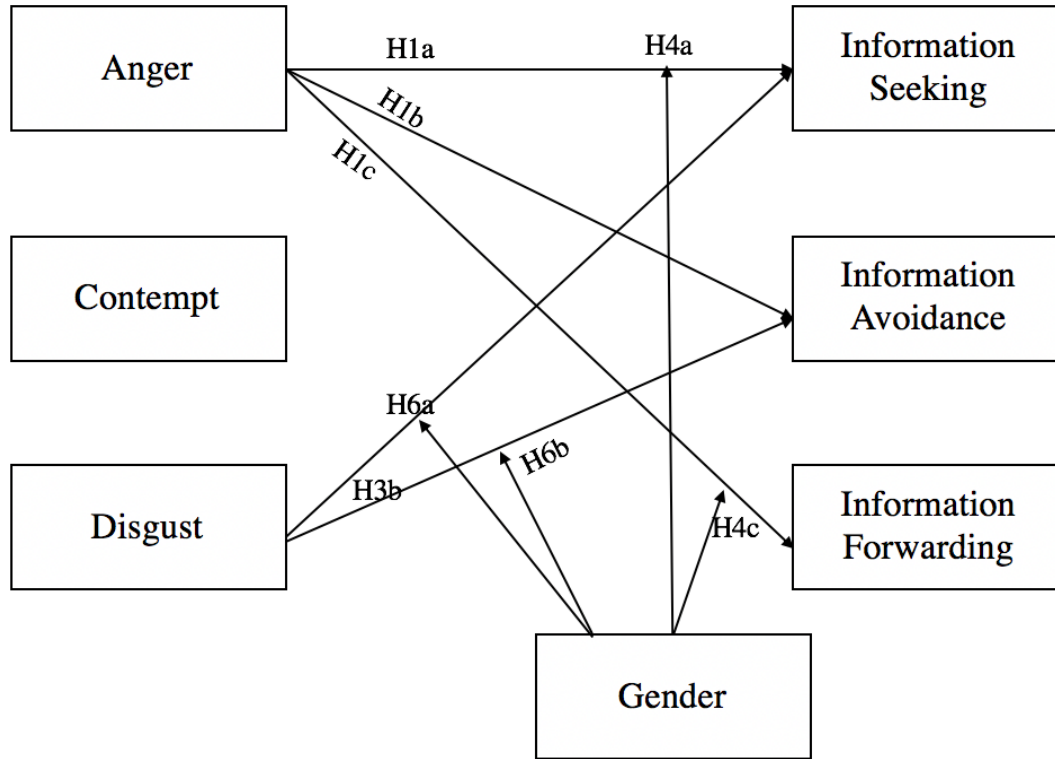
Figure 6. Supported conceptual model.

Discussion

Emotion and Information Behaviors

Our findings revealed that anger, as an approach-oriented emotion, drove participants to seek more relevant information and forward issue information to others. Moreover, a higher level of anger reduced the likelihood of information avoidance. Prior research suggested that a high level of anger drove people to be proactive, to protect or restore their own rights and autonomy (Fischer & Roseman, 2007), and to relieve their unpleasant feelings (Elliot et al., 2013). In this study context, such proactive approaches translated into actively seeking relevant information and broadcasting such information.

Notably, information forwarding involved a higher level of activeness than information seeking and avoidance. The former not only addressed one's own information-related decision making, but also involved persuading others to change their attitudes or actions (Kim & Krishna, 2014). For this reason, it may be more difficult to motivate information forwarding than seeking or avoiding. Anger was found to be an effective

motivator for information forwarding. By contrast, contempt and disgust did not affect such a proactive behavior. Thus, this finding supported that non-approach-oriented emotions motivated a withdrawal rather than approach action orientation in the context of controversial sociopolitical issues (Hutcherson & Gross, 2011).

Unexpectedly, contempt was not significantly related to any of the information behaviors studied, and no significant interactions were found between contempt and gender. The lack of significant links may be explained by participants' relatively invariantly moderate levels of contempt. A further analysis of paired-samples t tests revealed that participants' levels of contempt (M = 4.13) were significantly lower than their levels of anger (M = 5.20), t(869) = −22.804, p <.001, and disgust (M = 4.80), t(869) = −15.954, p <.001. Moreover, defined as a reaction to "the violation of the ethics of the community (respect, duty, hierarchical relations)" (Fischer & Roseman, 2007, p. 103), contempt was theorized on the basis of denouncing the target as incompetence or unintelligence with a sense of moral superiority (Hutcherson & Gross, 2011). In fact, a closer examination of participants' descriptions of the controversial issues showed that they did not express their opinions from a superior perspective. Some of them even voiced their viewpoints from the perspective of the "inferior" or less empowered groups (e.g., "Minorities are being unfairly treated daily"; "Women don't have equal rights for anything"). As a result, participants' experienced contempt may be limited, and its variance was reduced. More importantly, as contempt involved judging the target as unworthy, a critical element of contempt was indifference (Rozin et al., 1999). It is thus likely that the effect of contempt was muted and difficult to detect. It is also likely that such indifference resulting from contempt may lead to complete disengagement from all information behaviors, even including active information avoidance.

Another key finding was that disgust had a significant impact on information avoidance but not on the other two information behaviors. We found that the higher the level of disgust, the greater the likelihood of information avoidance. Such a finding echoed the argument that disgust motivated withdrawal (Ugazio et al., 2012) and thereby drove information avoidance, whereas information seeking and forwarding (Kim & Grunig, 2011) required approach motivation.

Moderating Role of Gender

The findings revealed significant interaction effects between disgust and gender on both information seeking and avoidance. Specifically, female participants were less active in seeking information and more active in avoiding information when experiencing a high level of disgust. This behavioral pattern was mostly aligned with the predicted influence of disgust on preventing people from taking approach-oriented proactive actions. However, male participants demonstrated a reversed pattern of information behaviors. That is, the more disgusted male participants were, the more active they were in information seeking, and little difference was observed in their information avoidance. Such an unexpected finding thus demands more theoretical deliberation.

It is possible that women are generally more sensitive to disgust-inducing stimuli (Schienle, Schafer, Stark, Walter, & Vaitl, 2004) and therefore are more greatly influenced by the impact of such an emotion. This may further contribute to their information avoidance. Another possible explanation could be that, in the current social hierarchy, most men continue to enjoy male privileges, and throughout their socialization process, they are more empowered than women in terms of senses of control, power, and

confidence (Women and Gender Advocacy Center, n.d.). Thus, when men experience strong feelings of disgust caused by a third party, they may feel more empowered to take control by proactively seeking relevant information to justify their own stances and reduce unpleasant feelings. Future research should examine factors of perceived power or control to elucidate the gender difference in how men and women react to disgust via information behaviors.

Additionally, interactions between anger and gender were significant on information seeking and forwarding, but not on information avoidance. Female participants were more active in information seeking and forwarding when they experienced a high level of anger, an approach-oriented emotion. However, male participants behaved in a less salient or even opposite manner: The angrier they were, the less active they were in information seeking or showing minimum change in information forwarding. One possible reason could be that overall male participants experienced a lower level of anger when facing controversial sociopolitical issues. Indeed, female participants overall reported a significantly higher level of anger than men ($t = -2.5$, $p = .012$). Compared with the emotions of contempt ($SD = 1.67$) and disgust ($SD = 1.79$), male participants' anger had the lowest variance ($SD = 1.66$). Because of its relatively low mean score and minimal variance, anger may not be a salient emotive antecedent for men when making decisions about information acquisition and broadcasting. Also, prior research suggested that men and women managed and reacted to anger differently (Muscatello et al., 2017). Moreover, our study found that males in general were more active in information seeking ($B = .13$, $t = 4.03$, $p < .001$) and forwarding ($B = .16$, $t = 4.69$, $p < .001$).

It should be noted that the interest of this study lies in examining moral emotions and gender as two direct and immediate antecedents of publics' information behaviors regarding controversial sociopolitical issues. Motivational mediators such as situational motivation in problem solving proposed by the STOPS was not examined because emotion psychology literature has consistently documented that people's behaviors can be directly determined by their emotional states without going through the sequence of emotion-motivation-behavior (e.g., Yang & Kahlor, 2012). As Loewenstein, Weber, Hsee, and Welch (2001) asserted in their seminal work, "The idea that emotions exert a direct and powerful influence on behavior receives ample support in the psychological literature on emotions" (p. 272). Given this robust direct effect of emotions, this study, as one of the initial efforts to examine the role of moral emotions in shaping publics' communicative behaviors about controversial issues, focused on testing the direct association between the two.

Additionally, with regard to the behavioral outcome of information avoidance, communication and psychology literature has shown that not all avoiding behaviors are due to motivation (Golman, Hagmann, & Loewenstein, 2017). Emotions such as fear and cognitions such as low self-efficacy can directly lead one to avoid undesirable information without going through the motivational route (Miles, Voorwinden, Chapman, & Wardle, 2008). With that being said, public relations literature has provided a few insights into the emotion-motivation-behavior effect chain based on the STOPS framework. For example, Shin and Han (2016) found that negative emotions (i.e., a composite of sadness, anger, and fear) were positively related to situational motivation in problem solving, which in turn promoted communicative action such as information forwarding and information seeking. However, their study only considered the valence of emotions and failed to systematically investigate the differences among discrete emotions. Thus, we call for future research to extend our study by examining motivational factors such as situational motivation in

problem solving as the mediators that may explain the relationships between different moral emotions and publics' communicative action about controversial issues.

Limitations and Future Research

One limitation of this study is its reliance on self-reported measures of moral emotions and information behaviors. Future studies should directly observe differences in information behaviors and assess emotions using other measures such as facial expressions and physiological sensors. Additionally, the way we asked participants about their experienced emotions focused on the triggering controversial issue. We did not ask them to think about the responsible party causing their experienced emotions, though their responses did reveal such information. Nevertheless, future research should investigate the target of moral emotions. Furthermore, we did not take into account the fact that some individuals tend to experience emotions more readily and are more likely to be affected by their emotions. Beyond gender differences, it is also likely that moral reasoning involving affective and cognitive processes gradually changes with age. Future research thus may consider the influence of other demographic moderators.

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