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Valuing High Arousal Negative States Increases Negative Responses Toward Outgroups Across Cultures

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Previous research demonstrates that the more people experience anger, fear, and other high arousal negative states (HAN) on average, the more prejudice and harm they express toward outgroups. Here we demonstrate that *valuing* HAN—above and beyond actually experiencing HAN—increases people's likelihood of engaging in harm toward cultural outgroups in everyday life. In Study 1, U.S. European Americans (*N* = 227) read hypothetical scenarios in which a member of another cultural group at school, work, or home made them uncomfortable. As predicted, the more participants ideally wanted to feel HAN, the more negatively they responded to the outgroup member in these scenarios (i.e., the more HAN they felt, the more they viewed harmful actions as appropriate, and the more likely they were to engage in these actions). To assess generalizability, in Study 2, we provide evidence from Canada (*n* = 162) and Taiwan (*n* = 170) that despite cultural differences in the valuation of specific types of HAN, wanting to feel HAN still predicted negative responses toward cultural outgroups in both cultures. These findings raise the intriguing possibility that reducing people's valuation of HAN might play an important role in increasing tolerance of cultural diversity in multicultural societies.

Keywords: culture, harm, ideal affect, negative emotion, prejudice

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Imagine that you have been living in the same neighborhood for many years, with neighbors you trust and respect. One day, a new family moves in next door. This family comes from a different culture than yours, and you notice that their customs, habits, and practices are different from yours. This makes you uncomfortable. How do you respond?

Due to continued migration and globalization, this scenario is becoming increasingly common: individuals are in greater contact with people whose values and traditions elicit at least some discomfort because they are unfamiliar and ostensibly different from their own. Whereas some people may welcome and encourage this contact, others may actively avoid and discourage it. What factors account for these different responses to cultural outgroups?

Increasing research suggests that emotions play an important role in this process. For example, the more people experience anger and fear in general, the more likely they are to experience and express prejudice and harm toward outgroups (Bodenhausen et al., 2001; Cottrell & Neuberg, 2005; Dasgupta et al., 2009; DeSteno et al., 2004; Fiske, 1998; Smith, 1993; Smith & Mackie, 2010; Tapias et al., 2007). This is particularly concerning given recent findings that high arousal negative content (anger, moral outrage) is more contagious than other types of affect on social media, especially in the United States (e.g., Brady et al., 2017, 2020, 2021; Brady & Crockett, 2019; Crockett, 2017; Hsu et al., 2021; Vosoughi et al., 2018), suggesting that people may be exposed to high arousal negative affect content now more than ever before.

Here we explore whether wanting to feel negative emotions, particularly high arousal negative states (HAN) such as anger and fear, may additionally contribute to negative responses toward outgroups, above and beyond people's tendency to actually experience those states. This distinction is important because previous experimental research suggests that people's affective values and ideals may be more malleable than their tendencies to actually feel those affective states (e.g., Tsai, Louie, et al., 2007; Tsai, Miao, et

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al., 2007). This implies that one way to decrease prejudice against cultural outgroups may be to reduce the value people place on high arousal negative affective states. Prior to presenting our studies examining the links between valuing HAN and responses to outgroups, we describe the theoretical framework motivating this research, affect valuation theory (AVT).

Affect Valuation Theory

AVT (Tsai, 2007, 2017) proposes that how people ideally want to feel (their "ideal affect") differs from how they actually feel (their "actual affect"). By "affect" we refer to states that are described in terms of arousal (from "high" to "low") and valence (from "positive" to "negative"; Feldman Barrett & Russell, 1999; Watson & Tellegen, 1985; see Figure 1, top), although the theory can be applied to other emotional states as well.

Whereas actual affect is a response to an event, or a tendency to respond in a certain way, ideal affect is a value, goal, or state that people desire and consciously or unconsciously work to attain. While actual affect tells people how they are doing ("How do I feel?"), ideal affect helps people interpret and evaluate their actual feelings ("Is this a good or bad feeling?" "Does this feel right?"; Tsai, 2007, 2017; Tsai et al., 2006). Thus, although related, actual affect and ideal affect are distinct constructs, and ideal affect can be a critical antecedent to actual affective experience (e.g., Chim et al., 2018; Sims et al., 2015).

AVT proposes that although temperamental factors may shape actual affect more than ideal affect (Diener & Lucas, 1999; Lykken & Tellegen, 1996; McCrae, Costa, & Yik, 1996), cultural factors—reflected in and reinforced by practices, institutions, and artifacts (Kroeber & Kluckhohn, 1952)—shape ideal affect more than actual affect (Tsai et al., 2006). For instance, European Americans value excitement, enthusiasm, and other high arousal positive states more than Hong Kong Chinese and other East Asians do (Bencharit et al., 2019; Tsai et al., 2006, 2007). In addition, many East Asians value calm, peacefulness, and other low arousal positive states more than European Americans, although these differences appear to be less stable over time (e.g., Bencharit et al., 2019). These findings hold even after controlling for differences in actual affect, and emerge even when differences in actual affect do not. Moreover, these cultural differences in ideal affect are reflected in media, including children's storybooks, magazine advertisements, Facebook photos, leaders' official website photos, and even in people's social media posts (Hsu et al., 2021; Huang & Park, 2013; Tsai, Louie, et al., 2007; Tsai et al., 2016).

Finally, AVT proposes that people's ideal affect drives many of their choices and behaviors, above and beyond their actual affect. For instance, the more individuals value high arousal positive states such as excitement and enthusiasm, the more likely they are to engage in physically rigorous exercise (Chim et al., 2018), choose stimulating versus soothing consumer products (Tsai et al., 2015), and prefer as well as adhere to the recommendations of a physician who promotes a dynamic versus relaxed lifestyle (Sims et al., 2014; Sims & Tsai, 2015). The greater valuation of high arousal positive states has even been linked to less positive personal views of aging (Tsai et al., 2018), in part because old age is associated with decreases in arousal.

## Ideal Affect and Responses to Others

Most recently, studies have demonstrated that people's ideal affect influences their perceptions of and responses to others. The more people value high arousal positive states, the more affiliative (warm, friendly) they perceive excited (vs. calm) targets to be (Tsai et al., 2019). For instance, in the context of a Dictator Game, in which participants were given a set amount of money and allowed to share some or all of it with a target, European Americans gave more of their money to excited (vs. calm) targets than did Koreans, regardless of targets' race or sex. This was in part because European Americans perceived excited (vs. calm) targets to be more trustworthy (Park et al., 2017). In a recent study, we found that this applied to real-world decisions such as whether to lend money to a borrower on Kiva, the web-based microlending platform (Park et al., 2020). Compared with their Hong Kong Chinese peers, European Americans are also more likely to choose excited (vs. calm) applicants for a job (Bencharit et al., 2019; Tsai et al., 2019), and excitement (vs. calm)-focused physicians for their health care (Sims et al., 2017). Across all of these studies, people's actual affect was weakly if at all correlated with these behaviors. Together, these studies not only suggest a link between the affective states that people value and their perceptions of targets, but they also show how this "ideal affect match" has important consequences for real-world outcomes (Tsai, 2021).

This work, however, has largely focused on prosocial, approach-related behaviors toward strangers (e.g., giving and lending money to a stranger; choosing a job candidate, leader, or physician). What remains unknown is whether ideal affect also influences how people respond to cultural outgroup members who may elicit feelings of discomfort. In these potentially threatening situations, we propose that the degree to which people value different *negative* states may matter more than the degree to which they value different positive states in predicting people's responses to outgroups.

Previous Work on Group-Based Emotions

Several scholars have already demonstrated the importance of group-based emotions in predicting subsequent behavior toward ingroup and outgroup members. For instance, feelings of group pride predict support and sacrifice for the ingroup; anger predicts attack of outgroup members, and disgust predicts avoidance of outgroup members (e.g., Mackie & Smith, 2015, 2018; van Zomeren et al., 2012). While research on group-based emotions has mainly focused on spontaneous reactions to group-related events, researchers have also focused on how members want to feel toward their ingroups or outgroups (for excellent review, see Goldenberg et al, 2016; Porat et al., 2020). Recently, Smith and Mackie (2021) found that wanting to feel positive emotions toward one's ingroup predicted subsequent intentions to provide ingroup support. Moreover, significant evidence suggests that people's motivation to feel certain states (i.e., collective angst, anger, empathy) shapes their political ideologies and attitudes toward intergroup conflicts (Hasson et al., 2018; Porat, Halperin, Mannheim, et al., 2016; Porat et al., 2019; Tamir, 2016). For instance, Israelis' preference for anger (vs. empathy) toward Palestinians was linked to their actual experience of anger toward Palestinians, which in turn decreased their support for conciliatory policies in the war of Gaza (Porat, Halperin, & Tamir, 2016).

Figure 1

Circumplex Model of Affect (Left) and Different Types of HAN (Right)

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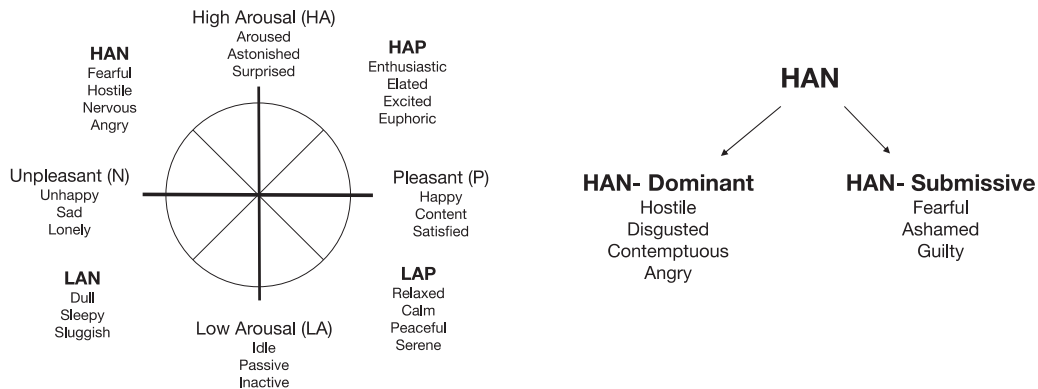
Note.   HAN = high arousal negative; LAN = low arousal negative states; HAP = high arousal positive states; LAP = low arousal positive states.

Valuing Negative States

The above studies focus on how individuals want to feel toward their ingroup or toward specific outgroups. In contrast, the present article focuses on how much people ideally want to feel negative states in general,[1] and what relationship these general affective ideals have on people's responses to cultural outgroups with whom they are interacting for the first time in everyday situations. We explore these processes in cultural contexts that we predict vary in their valuation of specific negative states (i.e., the United States, Canada, and Taiwan).

Although previous work on AVT has primarily focused on ideal positive states (for a review see Tsai & Clobert, 2019), some work has examined the valuation and devaluation of negative states and demonstrated their impact on expressions of sympathy (Koopmann-Holm et al., 2020; Koopmann-Holm & Tsai, 2014) and experiences of negative emotion (Sims et al., 2015). For instance, Koopmann-Holm & Tsai (2014) observed that the more people wanted to avoid negative affect, the more likely they were to focus on the positive (vs. the negative) when expressing sympathy toward an acquaintance who had lost a loved one. Whereas other research groups have focused on preference for specific negative emotional states (as mentioned above), these studies tend to focus on how people want to feel in the context of a specific task (e.g., Tamir & Ford, 2009) or in relation to a particular intergroup conflict (e.g., Israeli-Palestinian conflict in Porat, Halperin, & Tamir, 2016). Other groups have also examined people's views of different negative states as appropriate or helpful and demonstrated that these views moderate the associations between negative emotions and health (Luong et al., 2016).

This article, however, focuses on the degree to which people ideally want to feel (or "value") different negative states on average, and how these general values regarding negative affect shape responses to culturally different outgroups in everyday social situations (e.g., at school, work). Like previous research (e.g., Porat, Halperin, & Tamir, 2016), we theorize that the more people value high arousal negative states such as fear and hostility, the more likely they are to experience these states when they encounter an uncomfortable, potentially threatening situation. In part this may be because valuing a state may increase the likelihood that people will attend to and focus on aspects of the situation that elicit that state. For instance, the more individuals value negative affective states, the more negative details they correctly recognize in complex photographs (Koopmann-Holm et al., 2020). This might be particularly true in uncomfortable situations that involve a member of a cultural outgroup because these situations are more likely to generate negative feelings, a sense of threat, and subsequent discriminatory behavior than more common interpersonal conflicts among ingroup members are (Fiske, 1998; Mackie & Smith, 2015; Stephan & Stephan, 2017). Furthermore, whereas most individuals are motivated to resolve ingroup conflicts because they need to maintain these relationships (e.g., roommates need to resolve their conflicts so that they can continue to live together), individuals may not be as motivated to resolve intergroup conflict, making harmful behavior more acceptable and likely to occur.

For these reasons, we predict that in scenarios that involve cultural outgroups, the more people ideally want to feel HAN, the more they will experience high arousal negative states, which will make them more likely to view harmful actions toward the outgroup as appropriate, which will then increase the likelihood that they will engage in harmful actions. However, we do not predict that we will observe these associations during ingroup conflict, or during interpersonal conflicts that do not involve outgroups.

Different Types of Negative States

HAN Versus LAN

Because previous work has distinguished between high and low arousal positive states, we were interested in whether the proposed

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[1] We use the terms "ideally want to feel" and "value" or "valuation" interchangeably when referring to ideal affect because in this work and the bulk of our previous work, we focus on global ideal affect, or how people ideally want to feel on average, which makes it more like an overarching value (e.g., Tsai et al., 2006). That said, we recognize that there are situations in which how people want to feel in the moment diverges with what they want to feel on average (e.g., Tamir & Ford, 2009, 2012). In these situations, "ideal affect" and "values" are not interchangeable. It would be interesting to explore when global and situational ideal affect converge and diverge in future research.

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relationships would differ for high arousal (anger, fear; HAN) versus low arousal (dullness, sluggishness; LAN) negative states, as defined by circumplex models of affect (Figure 1, left).

HAN tend to be experienced in anticipation of and in response to immediate threats, whereas LAN tend to be experienced after coping with such threats (Mogg & Bradley, 1999; Nesse, 1990). In the same way that high arousal positive states are associated with influence, or acting on and changing one's environment to be consistent with one's preferences and desires (Tsai et al., 2007), high arousal negative states should be associated with influence, or acting on and changing a situation to be less threatening. Thus, when presented with an unfamiliar person that elicits discomfort, people who ideally want to feel HAN may be more likely to feel angry, scared, and other high arousal negative states, and therefore, may be more likely to view harm toward that outgroup member as appropriate, which may in turn increase the likelihood that they respond in that way (Figure 2, model 1).

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In contrast, in the same way that low arousal positive states are associated with suspending action to attend to environmental demands (Libby et al., 1973; Schupp et al., 1997; Tsai et al., 2007), LAN may be associated with initial reductions in action in the context of a threat. Thus, when presented with an unfamiliar person that elicits discomfort, people who ideally want to feel LAN may be less likely to feel angry, scared, or other high arousal negative emotions, and therefore, may be less likely to view the threat as one that requires immediate action, which may in turn reduce the likelihood that they respond in that way.

Dominant Versus Submissive HAN

There are also differences among high arousal negative states. Whereas anger is associated with approach and dominant behaviors (Amodio et al., 2004; Harmon-Jones & Sigelman, 2001), fear is associated with withdrawal and submissive behaviors (Davidson et al., 2000). Indeed, scholars have argued that dominance (power) is a third dimension that distinguishes among high arousal negative states, most notably anger and fear (Figure 1, right; Mehrabian & Russell, 1977; Russell, 1978). Along these lines, previous research has shown that dominant emotions such as anger and contempt are associated with approach behaviors, whereas submissive emotions such as fear, shame, and guilt are associated with avoidance or withdrawal behaviors (Aguinis et al., 1998; Anderson & Berdahl, 2002; Hess et al., 2000; Keltner et al., 2003; Knutson, 1996; Tiedens, 2001). Thus, while valuing HAN may increase the likelihood of harmful action, individuals who value dominant high arousal negative states (HAN-Dom) more may act to *overcome* perceived threats, whereas individuals who value submissive high arousal negative states (HAN-Sub) may act to *avoid* perceived threats. Indeed, harmful behaviors have been distinguished in terms of how "active" versus "passive" they are (Cuddy, Fiske, & Glick, 2007; Fiske et al., 2007), with "active" harm referring to harassing, bullying, or hurting perceived threats, and "passive" harm referring to ignoring, neglecting, and avoiding perceived threats.[2]

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Thus, the more individuals ideally want to feel HAN-Dom, the more they may view "active" harmful responses to the perceived threat as appropriate, which should result in greater engagement in more active forms of harm. The more individuals ideally want to feel HAN-Sub, however, the more they may view passive harmful responses to the perceived threat as appropriate, which should result in greater engagement in passive forms of harm (Figure 2, model 2).

Consistent with this idea, previous findings demonstrate that the experience of anger predicts "active harm" (i.e., approaching individuals with an explicit intent to harm by harassing or bullying them), whereas the experience of fear predicts "passive harm" (i.e., distancing oneself from individuals by ignoring or avoiding them; Halperin et al., 2013; Lerner et al., 2003; Skitka et al., 2006). These studies, however, primarily focus on the *actual* experience of HAN-Dom and HAN-Sub rather than the valuation of these states. Therefore, it remains unclear whether ideal HAN-Dom and ideal HAN-Sub have similar effects on different forms of harm, above and beyond the actual experience of these states.

The Present Work

To examine the links between ideal affect and responses to unfamiliar cultural outgroups, we conducted two studies. Because we were interested in responses to cultural outgroups in everyday situations, we created hypothetical scenarios in which participants imagined situations at school, work, or home in which a member of an unspecified and unfamiliar cultural group engaged in practices that elicited some discomfort in the participant. To examine the specificity of our findings, we also created hypothetical "control" scenarios in which participants imagined conflict situations that did not involve cultural outgroup members (e.g., with coworker, roommate, restaurant staff, boss). We measured participants' feelings, views of different responses (active vs. passive, facilitative vs. harmful) as appropriate, and their likelihood of engaging in these responses (See online supplementary materials, Section 1). We first assessed the psychometric properties of our measure (see online supplementary materials, Section 2). In Study 1, we examined the links between participants' ideal affect and their responses to these hypothetical scenarios among European Americans in the United States. Then in Study 2, we examined whether the links between valuing specific negative affective states and negative responses to cultural outgroups generalized to Canadian and Taiwanese samples.

Study 1: Ideal Affect and Responses Toward Cultural Outgroups in the United States

Method

Hypotheses

In Study 1, we tested our hypotheses regarding the links between ideal negative affect and responses to cultural outgroups. First, we hypothesized that ideal negative states would predict responses to cultural outgroups more than ideal positive states would. Second, we hypothesized that among ideal negative states, ideal HAN would predict HAN feelings and harmful behaviors more than ideal LAN would, controlling for actual HAN or LAN. Third, we tested a specific mechanism in which the relationship between ideal HAN and harmful behaviors toward outgroups would be mediated by feeling HAN and viewing harmful behavior as appropriate. Fourth, we tested the specific prediction that

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[2] Whereas active forms of harm can be considered approach behaviors, passive forms of harm include but are not limited to avoidance behaviors. For instance, individuals may ignore and neglect outgroup members even when they are in close proximity (e.g., ignoring the perspective of outgroup members at a joint meeting).

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Figure 2
Proposed Models for Outgroup Scenarios

Model 1
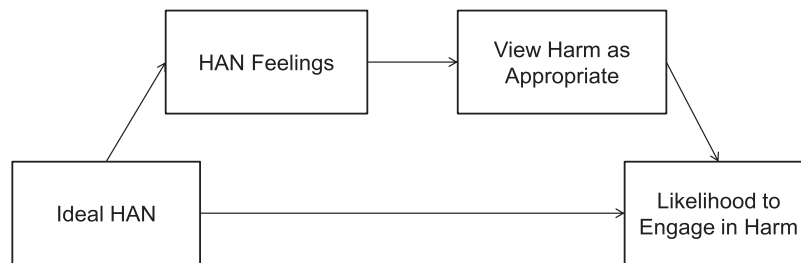
Model 2

Note. HAN = high arousal negative; Dom = dominant; Sub = submissive.

valuing HAN-Dom would increase the likelihood of engaging in active harm toward outgroups, whereas valuing HAN-Sub would increase the likelihood of engaging in passive harm toward outgroups. We did not predict that we would see these associations in the control situations.

Participants

Three hundred four participants were recruited on Amazon Mechanical Turk to participate in an online survey (30 min) of "emotions, decision making, and values" for a flat fee of $2.00. Power analyses using G*Power 3.1.3 (Erdfelder, Faul, & Buchner, 1996) indicated that a sample size between 193 to 346 subjects was necessary for the study to have 80% power to detect a small to medium effect size ($\rho = .15 - .20$) at an α level of .05. We stopped data collection when we reached approximately 300 participants. Participants were prescreened to include only those living in the United States.
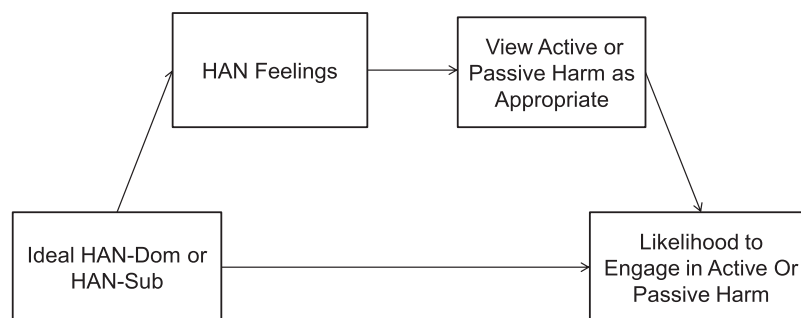
Mechanical Turk workers are more diverse and representative of the U.S. population in term of age and education than college undergraduate samples (Buhrmester, Kwang, & Gosling, 2011); they pay as much attention to study stimuli as subjects from more traditional sources (Chandler & Shapiro, 2016; Hauser & Schwarz, 2015, 2016; Paolacci et al., 2010), and they generate data of equal quality (Mason & Suri, 2012; Paolacci et al., 2010). Therefore, we recruited participants though Mechanical Turk to achieve more variability in age and education than we might have with a university sample. Because our studies took place in the United States,

we focused on European American samples, who currently constitute the majority group in the United States. Thus, we excluded members of ethnic minority groups (26 Asians or Asian Americans, 25 Latinos, 24 Africans or African Americans, 2 American Indians/Alaskan Natives) from our analyses, to reduce the likelihood that participants would have a high level of daily contact with members of different cultural groups. Our final sample included 227 European Americans (52.4% male; age $M = 25.71$, $SD = 3.98$). The majority of the participants had attended some university or community college (80.7%), were politically moderate ($M = 3.43$, $SD = 1.18$; scale from 1 = *Conservative* to 5 = *Liberal*), and reported moderate contact with people from different cultures ($M = 3.59$; $SD = 1.14$; scale from 1 = *Never* to 5 = *Very often*).

Measures

Actual and Ideal Affect. To assess global actual and ideal affect, participants completed the Affect Valuation Index (AVI; Tsai et al., 2006). Participants rated how often they "actually felt" and they would "ideally like to feel" various states "during a typical week" on a 1 to 5 scale (1 = *never*, 5 = *all of the time*). The AVI included 38 affective states designed to sample each octant of the affective circumplex (Larsen & Diener, 1992; Watson & Tellegen, 1985): enthusiastic, dull, excited, sleepy, strong, sluggish, euphoric, idle, aroused, rested, astonished, quiet, surprised, still, passive, inactive, fearful, calm, hostile, peaceful, nervous, relaxed, elated,

lonely, content, sad, happy, unhappy, satisfied, serene, energetic, ashamed, disgusted, stressed, guilty, contemptuous, fatigued, and angry.

As in previous work, actual HAP and ideal HAP were aggregates of actual and ideal enthusiastic, excited, euphoric, and elated, respectively; actual LAP and ideal LAP were aggregates of actual and ideal calm, peaceful, relaxed, and serene, respectively; actual HAN and ideal HAN were aggregates of actual and ideal fearful, hostile, nervous, and angry, respectively; actual LAN and ideal LAN were aggregates of actual and ideal dull, sleepy, and sluggish, respectively. Actual HAN-Dom and ideal HAN-Dom were aggregates of actual and ideal hostile, disgusted, contemptuous, and angry, respectively; and actual HAN-Sub and ideal HAN-Sub were aggregates of actual and ideal fearful, ashamed, and guilty, respectively. Reliabilities for actual and ideal aggregates are reported in Table 1.

Cultural Outgroup Scenarios. We created four hypothetical scenarios in which individuals were asked to imagine having contact with a person or people from a culture with different values, customs, and habits that made them feel uncomfortable. The instrument and its psychometric properties are provided in the online supplementary materials, Sections 1 and 2. The scenarios were: (a) a family with cultural values, customs, habits, and practices that make you feel uncomfortable moves next door to you; (b) a pupil with different cultural customs, religious beliefs, and practices than you joins your child's classroom; (c) a person with cultural values, customs, habits, and practices that are the opposite of yours is hired at your company and becomes one of your coworkers; (d) your best friend is dating (and becoming more serious about) someone with cultural values, customs, habits, and practices that seem strange to you.

We chose these situations because they involve contact with a member of a different culture that generates some discomfort in an everyday setting. We did not indicate the specific culture that the outgroup members were from to avoid preexisting biases that participants might have about specific groups. We indicated that the cultural practices elicited feelings of discomfort because we were interested in situations that could be perceived as potentially threatening to one's values and traditions to allow some variability in response and to mimic more common situations in daily life.

We also asked participants to imagine four scenarios that served as "control" scenarios. These scenarios depicted common conflict situations that did not involve a cultural outgroup member: (a) waiting to be served in a restaurant, (b) having your food eaten by your roommates, (c) talking with your colleague about your opposing political opinions, and (d) being asked by your boss to work during the weekends.

Responses to Scenarios. We assessed three types of responses to the scenarios: (a) feelings, (b) views of harmful or facilitative behaviors as appropriate, and (c) likelihood of engaging in harmful or facilitative behavior. After reading each scenario, participants first rated how much they would feel eleven different affective states in the hypothetical scenarios (nervous/anxious, happy, curious, scared, disgusted, upset, angry, amused, depressed, excited, calm/relaxed). An exploratory factor analysis with varimax rotation indicated the existence of two factors that explained between 62.04% to 62.52% of the observed variance across the scenarios: (a) positive (happy, curious, amused, excited, calm; factor loadings $\geq$ .384), and (b) high arousal negative[3] (nervous/anxious, scared, disgusted, upset, angry; factor loadings $\geq$ .428). Thus, we created

aggregated scores of positive (α = .82) and high arousal negative (α = .93) feelings in response to the scenarios.

Participants then rated the appropriateness of each behavioral reaction using a scale from 1 = *not at all appropriate* to 5 = *very appropriate*. Responses varied in terms of how *active* versus *passive* and how *harmful or facilitative* they were (Fiske et al., 2007). *Active harmful* responses were "complain about him/her" and "support an initiative against him/her"; *passive harmful* responses were "avoid interacting with him/her" and "quit the situation." *Active facilitative* responses were "interact as much as possible with him/her" and "try to learn from him/her"; *passive facilitative* responses were "just be friendly with him/her" and "welcome him/her." We created "view as appropriate" aggregates for active harm, passive harm, active facilitation, and passive facilitation across the four scenarios. Reliabilities are reported in Table 1.

Finally, participants rated how likely they were to engage in the same eight possible behavioral reactions described above, using a scale from 1 = *not at all/not at all likely* to 5 = *very much/very likely*. We created "likelihood to engage" aggregates for active harm, passive harm, active facilitation, and passive facilitation across the four scenarios.

Reliabilities are reported in Table 1.

Demographics, Political Orientation, and Intergroup Contact. Participants completed a demographic questionnaire, which asked for participants' age, gender, level of education, and ethnicity. To ensure that our findings did not vary as a function of political orientation and frequency of intergroup contact, participants reported their political orientation (Likert scale from 1 = *conservative* to 5 = *liberal*) and frequency of intergroup contact (Likert scale from 1 = *never* to 5 = *very often*).

Procedure

Participants completed the measures of actual and ideal affect, read the scenarios, and answered questions about their responses to these scenarios, the frequency of their intergroup contact, their political orientation, and demographics. We administered other instruments as filler questionnaires; however, because they are not the focus of the present study, we will not discuss them further.[4] These procedures were reviewed and approved by the Stanford IRB protocol 32418, "Emotions, decision making, and attitudes."

Transparency and Openness

Study 1 data and stimuli are available at https://osf.io/zxt94/. We did not preregister our hypotheses because these data were collected before preregistration was common practice.[5]

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[3] Feeling depressed, which is considered LAN, was also measured and loaded with the other items. When this item was included in the overall aggregate, the results for all studies remained the same.

[4] These questionnaires were the State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, et al., 1983), the State-Trait Anger Scale (STAS; Spielberger, Jacobs, et al., 1983), the Promotion/Prevention Scale (PPS; Lockwood et al., 2002), the General Ethnicity Questionnaire for American culture (GEQ; Tsai et al., 2000), and the shortened version of the Analysis-Holism Scale (AHS; Choi et al., 2007).

[5] Had preregistration been common practice, we would have preregistered our hypotheses for both studies; indeed, the aim of Study 2 was to see whether we could replicate Study 1 findings in two cultural contexts.

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Table 1

AQ: 19 *Descriptive Statistics for Ideal Affect, Actual Affect, and Responses to Outgroup and Control Scenarios (Study 1)*

Measure	α	M	SD	Measure	α	M	SD
Ideal affect				Actual affect			
HAP	.76	3.71	0.77	HAP	.82	2.52	0.75
LAP	.82	4.12	0.77	LAP	.83	3.03	0.74
HAN	.86	1.24	0.53	HAN	.82	1.83	0.71
LAN	.82	1.39	0.64	LAN	.76	2.51	0.85
HAN-Dom	.87	1.25	0.58	HAN-Dom	.80	1.68	0.66
HAN-Sub	.90	1.19	0.52	HAN-Sub	.86	1.67	0.78
Outgroup scenarios				Control scenarios			
Feelings during scenarios				Feelings during scenarios			
HAN	.93	1.63	0.64	HAN	.87	2.29	0.58
Positive	.82	2.42	0.67	Positive	.88	1.72	0.55
View as appropriate				View as appropriate			
Harm	.87	1.73	0.59	Harm	.67	2.58	0.48
Active	.74	1.71	0.59	Active	.58	2.38	0.56
Passive	.81	1.74	0.68	Passive	.48	2.78	0.55
Facilitation	.93	3.98	0.74	Facilitation	.80	3.25	0.64
Active	.88	3.85	0.80	Active	.72	3.57	0.52
Passive	.87	4.11	0.75	Passive	.67	3.78	0.65
Likelihood to engage				Likelihood to engage			
Harm	.86	1.88	0.60	Harm	.49	2.58	0.41
Active	.74	1.82	0.62	Active	.54	2.46	0.55
Passive	.79	1.95	0.70	Passive	.25	2.69	0.49
Facilitation	.90	3.65	0.66	Facilitation	.66	2.97	0.48
Active	.84	3.52	0.74	Active	.55	2.67	0.58
Passive	.81	3.79	0.67	Passive	.45	3.03	0.70

Note. HAP = high arousal positive states; LAP = low arousal positive states; HAN = high arousal negative states; LAN = low arousal negative states; Dom = dominant; Sub = submissive.

Results

Means and *SD*s for all variables for the outgroup scenarios are shown in Table 1. On average, in response to the cultural outgroup scenarios, participants reported feeling more positive than negative (*Mdiff* = .79, *SE* = .06, *t*[226] = 12.74, *p* < .001), viewing facilitative behaviors as more appropriate than harmful behaviors (*Mdiff* = 2.25, *SE* = .08, *t*[226] = 29.38, *p* < .001), and being more likely to engage in facilitative than harmful behaviors (*Mdiff* = 1.77, *SE* = .08, *t*[226] = 29.38, *p* < .001).

Similar patterns emerged for the control scenarios: participants reported viewing facilitative behaviors as more appropriate than harmful ones, and as being more likely to engage in facilitative than harmful behaviors, although the magnitude of the difference was smaller for the control versus the cultural outgroup scenarios (Outgroup versus control scenarios: η^2 = .79 versus .46 for view facilitation versus harm as appropriate, η^2 = .70 versus .25 for likelihood to engage in facilitative versus harmful behaviors). However, unlike the cultural outgroup scenarios, participants actually reported feeling more HAN than positive emotions in the control scenarios.

Does Ideal Negative Affect Predict Responses to Outgroups?

We conducted a series of multiple regression analyses to answer this question. Actual and ideal HAP, LAP, HAN, and LAN, as well as gender, age, and education were entered as predictor variables, and responses to the outgroup scenarios (positive and HAN feelings, views of harm or facilitation as appropriate, and likelihood of engaging in harm or facilitation) were treated as criterion variables. Table 2 reports zero-order correlations, and Table 3 reports the results of the multiple regression analyses.

As shown in Table 3, regression analyses revealed that neither ideal HAP nor ideal LAP significantly predicted any of these outcome variables. In contrast, ideal HAN did, supporting our first hypothesis that ideal negative affective states would matter more than ideal positive affective states in predicting responses to cultural outgroup members.

Consistent with our second hypothesis, ideal HAN predicted responses to outgroup members more than ideal LAN did. Specifically, the more people valued HAN, the more HAN they felt, the more likely they were to view harm as appropriate, the less likely they were to view facilitation as appropriate, and the more likely they were to engage in harm. In contrast, ideal LAN did not predict any of these responses. Moreover, the associations between ideal HAN and these outcome variables held above and beyond actual HAN and actual LAN.

Although actual HAN also predicted HAN feelings, the association was stronger for ideal HAN. To test this specifically, we followed the strategy described by Cumming (2009) to determine whether the two coefficients (for actual HAN and ideal HAN) were significantly different from each other. Two coefficients are considered significantly different (*p* < .05) if the proportion overlap (POL) between their 95% confidence intervals (overlap expressed as a proportion of the length of a single arm of a CI) is lower than 50%. POL is calculated by first averaging the length of one arm of both 95% CIs (M_l), expressed as M_l = (Beta A − lower bound A) + (upper bound B − Beta B)/2, or (.15 − .01) + (.64 − .43)/2 = .175. To obtain the percentage of overlap, the overlap between 95% CIs (upper bound A − lower bound B) is then divided by M_l or POL = (.29 − .21)/.18 = .44 (or 44%). The POL did not exceed 50% suggesting that ideal HAN can be considered as a stronger predictor of high arousal negative feelings than actual

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HAN. Interestingly, actual HAP also predicted HAN feelings, and actual LAN predicted positive feelings.

Similar results emerged when we controlled for participants' political orientation and frequency of intergroup contact (see online Supplementary Materials, Section 6).

Did Ideal HAN Predict Responses in the Control Scenarios?

Interestingly, these associations did not emerge for the control scenarios in which there was no cultural outgroup member. As shown in Tables 4 and 5, analyses revealed no significant effects of ideal affect (HAP, LAP, or LAN) on high arousal negative feelings, views of harm or facilitation as appropriate, and likelihood to engage in harm or facilitation. There was one exception: the more people valued HAN, the more positively they felt during control scenarios ($b = .41$, $t(215) = 4.40$, $p < .001$, 95% CI [.23, .60]). We did not have any predictions about ideal HAN and positive feelings for either type of scenario, and therefore we await future replication prior to interpretation.

Actual HAP and actual HAN also mattered: The more people felt HAP on average, the more HAN and positive they felt, and the less they viewed facilitation as appropriate during the control scenarios. Perhaps not surprisingly, the more people felt HAN on average, the more HAN feelings they reported during the control scenarios.

Together, these findings suggest that while ideal HAN predicted negative responses to a cultural outgroup, it did not predict negative responses to ingroup members during common interpersonal conflicts. Indeed, repeated measures ANOVAs by type of scenario (cultural outgroup vs. control) showed a significant main effect of scenario type on predicting negative feelings, $F(1, 224) = 513.10$, $p < .001$, $\eta^2 = .20$, viewing harm as appropriate, $F(1, 224) = 619.88$, $p < .001$, $\eta^2 = .29$, and the likelihood of engaging in harm, $F(1, 224) = 401.31$, $p < .001$, $\eta^2 = .23$, as well as a significant interaction between the type of scenario and ideal HAN when predicting negative feelings, $F(1, 224) = 34.83$, $p < .001$, $\eta^2 = .01$, viewing harm as appropriate, $F(1, 224) = 36.03$, $p < .001$, $\eta^2 = .02$, and the likelihood of engaging in harm, $F(1, 224) = 14.74$, $p <$

Table 2

Zero-Order Pearson Correlations Among Ideal Affect, Actual Affect, and Responses to Cultural Outgroup Scenarios (Study 1)

	Feelings		Harm						Facilitation					
			View as appropriate			Likelihood to engage			View as appropriate			Likelihood to engage		
Measure	HAN	Positive	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Ideal														
HAP	−.01	.09	−.17	−.15	−.18	−.17	−.15	−.16	.21	.19	.21	.16	.13	.18
LAP	−.20	−.01	−.35	−.33	−.31	−.28	−.31	−.20	.32	.25	.36	.19	.10	.27
HAN	.51	.24	.58	.59	.48	.49	.55	.35	−.38	−.27	−.46	−.23	−.10	−.35
LAN	.43	.19	.52	.54	.42	.46	.51	.32	−.33	−.21	−.42	−.17	−.06	−.28
HAN-Dom	.49	.23	.50	.51	.42	.43	.49	.30	−.37	−.30	−.41	−.23	−.13	−.32
HAN-Sub	.35	.24	.53	.52	.47	.44	.48	.33	−.38	−.30	−.42	−.24	−.15	−.31
Actual														
HAP	.27	.23	.26	.29	.18	.15	.22	.05	−.14	−.04	−.22	−.02	.05	−.10
LAP	−.07	.12	−.04	−.02	−.05	−.11	−.10	−.11	.10	.09	.09	.12	.10	.12
HAN	.45	.11	.34	.35	.28	.36	.35	.30	−.23	−.16	−.28	−.25	−.16	−.32
LAN	.27	.13	.15	.18	.11	.18	.15	.18	−.05	−.03	−.06	−.12	−.08	−.15
HAN-Dom	.46	.18	.47	.47	.41	.43	.44	.34	−.31	−.22	−.38	−.29	−.18	−.37
HAN-Sub	.47	.14	.31	.28	.29	.26	.26	.21	−.21	−.14	−.26	−.19	−.10	−.26
Feelings														
HAN	/	−.01	.71	.69	.63	.73	.66	.67	−.49	−.41	−.52	−.51	−.41	−.56
Positive	−.01	/	.01	.06	−.04	−.20	−.06	−.30	.29	.31	.22	.47	.49	.37
Harm														
View as App.														
Total	.71	.01	/	.92	.93	.82	.78	.71	−.51	−.40	−.57	−.48	−.34	−.56
Active	.69	.06	.92	/	.71	.76	.82	.57	−.49	−.36	−.57	−.40	−.26	−.51
Passive	.63	−.04	.93	.71	/	.75	.63	.74	−.45	−.37	−.49	−.47	−.37	−.52
Lik. to Engage														
Total	.73	−.20	.82	.76	.75	/	.91	.91	−.64	−.54	−.67	−.64	−.48	−.71
Active	.66	−.06	.78	.82	.63	.91	/	.66	−.61	−.47	−.68	−.48	−.30	−.61
Passive	.67	−.30	.71	.57	.74	.91	.66	/	−.55	−.50	−.53	−.68	−.58	−.69
Facilitation														
View as App.														
Total	−.49	.29	−.51	−.49	−.45	−.64	−.61	−.55	/	.94	.93	.75	.65	.75
Active	−.41	.31	−.40	−.36	−.37	−.54	−.47	−.50	.94	/	.75	.73	.70	.65
Passive	−.52	.22	−.57	−.57	−.49	−.67	−.68	−.53	.93	.75	/	.67	.50	.76
Lik. to Engage														
Total	−.51	.47	−.48	−.40	−.47	−.64	−.48	−.68	.75	.73	.67	/	.94	.91
Active	−.41	.49	−.34	−.26	−.37	−.48	−.30	−.58	.65	.70	.50	.94	/	.71
Passive	−.56	.37	−.56	−.51	−.52	−.71	−.61	−.69	.75	.65	.76	.91	.71	/

Note. Numbers indicate zero-order Pearson correlation coefficients. $rs < .13 = ns$; $.13 < rs < .17 = p < .05$; $.17 < rs < .21 = p < .01$; $rs > .21 = p < .001$. HAP = high arousal positive states; LAP = low arousal positive states; HAN = high arousal negative states; LAN = low arousal negative states; Dom = dominant; Sub = submissive; App = appropriate; Lik = likelihood.

Table 3

AQ: 20 *Associations Between Actual and Ideal Affect and Responses to Cultural Outgroups (Study 1)*

Predictors	HAN feelings ($R^2 = .36$)				View harm as appropriate ($R^2 = .34$)				Likelihood to engage in harm ($R^2 = .24$)			
	b	t Test	p	95% CI	b	t Test	p	95% CI	b	t Test	p	95% CI
Age	.01	0.27	.790	[−.02, .02]	−.01	−0.19	.849	[−.02, .01]	−.01	−0.12	.908	[−.02, .02]
Gender	.06	1.06	.291	[−.07, .22]	−.04	−0.62	.534	[−.18, .09]	.00	0.05	.964	[−.14, .15]
Education level	−.08	−1.42	.156	[−.12, .02]	−.06	−1.03	.305	[−.10, .03]	−.04	−0.69	.490	[−.09, .04]
Actual HAP	**.22**	**2.98**	**.003**	**[.06, .32]**	**.16**	**2.17**	**.031**	**[.01, .24]**	.10	1.22	.225	[−.05, .21]
Actual LAP	−.06	−0.88	.377	[−.18, .07]	−.01	−0.07	.942	[−.12, .11]	−.06	−0.75	.456	[−.18, .08]
Actual HAN	**.18**	**2.13**	**.034**	**[.01, .32]**	.04	0.43	.667	[−.10, .17]	.09	1.02	.310	[−.07, .23]
Actual LAN	.07	0.95	.341	[−.06, .17]	.02	0.21	.835	[−.09, .12]	−.02	−0.19	.848	[−.13, .10]
Ideal HAP	.09	1.04	.302	[−.07, .22]	−.01	−0.09	.927	[−.14, .12]	−.03	−0.33	.743	[−.17, .12]
Ideal LAP	−.04	−0.41	.682	[−.18, .12]	−.08	−0.86	.389	[−.19, .08]	.01	0.08	.934	[−.14, .15]
Ideal HAN	**.33**	**3.36**	**.001**	**[.16, .62]**	**.35**	**3.51**	**.001**	**[.16, .59]**	**.30**	**2.76**	**.006**	**[.09, .56]**
Ideal LAN	.02	0.23	.819	[−.17, .21]	.11	1.14	.254	[−.07, .28]	.11	1.06	.292	[−.09, .30]
	Positive feelings ($R^2 = .13$)				View facilitation as appropriate ($R^2 = .22$)				Likelihood to engage in facilitation ($R^2 = .16$)			
Age	−.01	−0.19	.848	[−.02, .02]	.02	0.36	.715	[−.02, .03]	.08	1.26	.210	[−.01, .03]
Gender	−.01	−0.14	.888	[−.19, .16]	.09	1.51	.132	[−.04, .32]	**.17**	**2.66**	**.008**	**[.06, .40]**
Education level	.00	0.03	.974	[−.08, .08]	.06	1.02	.308	[−.04, .13]	.09	1.41	.159	[−.02, .14]
Actual HAP	.16	1.85	.065	[−.01, .30]	−.15	−1.85	.066	[−.31, .01]	−.07	−0.81	.421	[−.21, .09]
Actual LAP	.07	0.84	.402	[−.09, .22]	.11	1.31	.191	[−.05, .27]	.07	0.82	.414	[−.09, .21]
Actual HAN	−.12	−1.20	.232	[−.30, .07]	−.07	−0.76	.449	[−.27, .12]	−.18	−1.88	.061	[−.35, .01]
Actual LAN	**.20**	**2.29**	**.023**	**[.02, .30]**	.08	0.95	.344	[−.07, .21]	.03	0.34	.730	[−.11, .16]
Ideal HAP	.08	0.79	.432	[−.10, .24]	.09	0.96	.340	[−.09, .26]	.16	1.65	.101	[−.03, .31]
Ideal LAP	.02	0.17	.862	[−.16, .19]	.12	1.19	.234	[−.07, .30]	.03	0.33	.742	[−.14, .20]
Ideal HAN	.23	1.95	.052	[−.00, .55]	**−.25**	**−2.30**	**.022**	**[−.62, −.05]**	−.18	−1.59	.114	[−.48, .05]
Ideal LAN	.03	0.30	.766	[−.20, .27]	.01	0.03	.977	[−.24, .25]	.13	1.22	.225	[−.09, .37]

Note. Bold text indicates significant findings, $p < .05$.

.001, $\eta^2 = .01$. These results further support our prediction that ideal HAN would be a significant predictor of negative feelings and negative responses in the outgroup scenarios but not in the control scenarios (see Tables 3 and 5).

Is The Relationship Between Ideal HAN and Likelihood of Engaging in Harm Toward Outgroups Mediated By Experiences of High Arousal Negative Affect and Views of Harm as Appropriate?

To test Hypothesis 3, we examined whether the link between ideal HAN and likelihood of engaging in harm was mediated by HAN feelings and views of harm as appropriate. We tested a serial mediation model in which the effect of ideal HAN (predictor variable) on the likelihood of engaging in harm (criterion variable) was mediated by HAN feelings (mediator 1) and views of harm as appropriate (mediator 2) using a SPSS macro (PROCESS, model 6) designed by Hayes (2013). Bootstrap analysis revealed a significant serial indirect effect of ideal HAN on likelihood of engaging in harm through HAN feelings and views of harm as appropriate, IE = .15, SE = .05, 95% CI [.07, .26], as shown in Figure 3. The more people valued HAN, the more HAN they felt during the hypothetical scenarios ($b = .45$, $SE = .12$, $p < .001$), which was associated with viewing harm as more appropriate ($b = .56$, $SE = .05$, $p < .001$), which increased their likelihood of engaging in harm ($b = .62$, $SE = .06$, $p < .001$). When controlling for HAN feelings and views of harm as appropriate, the direct effect of ideal HAN on likelihood of engaging in harm ($b = .34$, $SE = .11$, $p = .003$) was no longer significant, $b = −.06$, $SE = .07$, $p = .444$. Analyses controlled for actual HAN,

actual and ideal LAN, gender, age, and education, but none of these variables were significant predictors.

We also tested an alternative model reversing the order of the mediators (i.e., with views of harm as appropriate as mediator 1 and HAN feelings as mediator 2) but this model presented a weaker indirect effect IE = .09, SE = .03, 95% CI [.04, .156]. Thus, supporting Hypothesis 3, as predicted, ideal HAN was associated with greater likelihood of engaging in harm toward outgroups, and this relationship was mediated by HAN feelings and viewing harm as appropriate.[6]

Does Valuing HAN-Dom Versus HAN-Sub Predict Active Versus Passive Harm in the Cultural Outgroup Scenarios?

To test our final hypothesis, we conducted structural equation modeling using AMOS 20 since two criterion variables were included. Two different models for ideal HAN-Dom and ideal HAN-Sub were run separately given their high correlation ($r = .87$, $p < .001$). In each model, feeling HAN during contact with a cultural outgroup as well as viewing active and passive harm as appropriate were entered as mediators. The likelihood of engaging in active and passive harm were entered as criterion variables. In addition, actual HAN-Dom and actual HAN-Sub as well as age, gender, and education were included as covariates in each respective model.

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[6] In light of previous research, an additional model was tested in Study 1 with ideal HAN and actual HAN as moderators of the relationship between HAN feelings during intergroup contact and viewing harm as appropriate. However, this model did not fit the data. Analyses are reported in the online Supplementary Materials, Section 4.

Table 4
Zero-Order Pearson Correlations Among Ideal Affect, Actual Affect, and Responses to Control Scenarios (Study 1)

Measure	Feelings HAN	Feelings Positive	Harm View as appropriate Total	Active	Passive	Harm Likelihood to engage Total	Active	Passive	Facilitation View as appropriate Total	Active	Passive	Facilitation Likelihood to engage Total	Active	Passive
Ideal														
HAP	.04	−.00	−.02	−.02	−.01	−.12	−.10	−.08	.08	.07	.08	.08	.05	.10
LAP	−.00	−.19	−.11	−.15	−.05	−.14	−.15	−.07	.14	.12	.15	.09	.02	.14
HAN	.23	.56	.21	.26	.10	.27	.24	.18	−.16	−.11	−.19	−.01	.07	−.09
LAN	.20	.49	.20	.27	.07	.29	.28	.17	−.14	−.08	−.19	.02	.09	−.07
HAN-Dom	.23	.52	.20	.26	.08	.26	.25	.16	−.17	−.08	−.36	−.01	.16	−.29
HAN-Sub	.22	.54	.21	.28	.09	.28	.29	.14	−.15	−.04	−.38	−.00	.18	−.32
Actual														
HAP	.09	.35	.08	.16	−.02	−.01	.11	−.15	−.14	−.10	−.17	−.01	.07	−.09
LAP	−.14	.13	−.02	.05	−.09	−.10	.01	−.18	.02	.00	.04	.09	.06	.11
HAN	.41	.27	.20	.19	.16	.21	.12	.21	−.04	−.00	−.07	−.02	.04	−.08
LAN	.33	.15	.12	.08	.12	.12	.04	.16	.01	.03	−.01	−.01	.03	−.05
HAN-Dom	.33	.45	.27	.31	.17	.24	.21	.16	−.06	.03	−.28	−.02	.14	−.30
HAN-Sub	.31	.29	.18	.16	.15	.17	.09	.17	−.05	.03	−.20	−.00	.13	−.22
Feelings														
HAN	/	.15	.28	.26	.23	.40	.32	.30	−.20	−.18	−.20	−.22	−.20	−.18
Positive	.15	/	.19	.24	.09	.07	.14	−.05	.03	.11	−.16	.25	.38	−.08
Harm														
View as App.														
Total	.28	.19	/	.87	.87	.55	.52	.34	.18	.11	.22	−.05	−.10	.01
Active	.26	.24	.87	/	.50	.53	.67	.13	.00	−.02	.03	−.14	−.17	−.08
Passive	.23	.09	.87	.50	/	.43	.23	.45	.30	.22	.35	.05	.00	.10
Lik. to Engage														
Total	.40	.07	.55	.53	.43	/	.81	.76	−.31	−.32	−.26	−.20	−.24	−.10
Active	.32	.14	.52	.67	.23	.81	/	.24	−.31	−.32	−.26	−.23	−.25	−.15
Passive	.30	−.05	.34	.13	.45	.76	.24	/	−.17	−.19	−.14	−.07	−.12	.01
Facilitation														
View as App.														
Total	−.20	.03	.18	.00	.30	−.31	−.31	−.17	/	.93	.84	.61	.50	.53
Active	−.18	.11	.14	.03	.20	−.29	−.32	−.19	.93	/	.63	.58	.57	.36
Passive	−.20	−.16	.09	−.10	.25	−.35	−.26	−.14	.84	.63	/	.47	.23	.70
Lik. to Engage														
Total	−.22	.25	−.05	−.14	.05	−.20	−.23	−.07	.61	.58	.47	/	.88	.71
Active	−.20	.38	−.05	−.06	−.02	−.19	−.12	−.18	.50	.57	.23	.88	/	.38
Passive	−.18	−.08	−.05	−.19	.11	−.27	−.31	−.10	.53	.36	.70	.71	.38	/

Note. Numbers indicate zero-order Pearson correlation coefficients. rs $< .13$ = ns; $.13 < r$s $< .17 = p < .05$; $.17 < r$s $< .21 = p < .01$; rs $> .21 = p < .001$; HAP = high arousal positive states; LAP = low arousal positive states; HAN = high arousal negative states; LAN = low arousal negative states; Dom = dominant; Sub = submissive; App = appropriate; Lik = likelihood.

Contrary to hypotheses, the results did not reveal a specific role of ideal HAN-Dom in predicting active harm, or of ideal HAN-Sub in predicting passive harm. Estimates, standard errors, and *p* values for all models are reported in online Supplementary Materials, Section 3, Figure S1 (for significant paths). Indeed, there was no direct effect of either ideal HAN-Dom or ideal HAN-Sub on the likelihood of engaging in active or passive harm; instead, bootstrap analyses (5,000) revealed significant indirect effects. Ideal HAN-Dom increased high arousal negative feelings during the scenarios, which in turn increased viewing active and passive harm as more appropriate, which indirectly increased the likelihood of engaging in active, IE = .54, *SE* = .14, *p* < .001, 95% CI [.29, .85], and passive harm, IE = .39, *SE* = .15, *p* = .003, 95% CI [.12, .70], respectively. Similarly, ideal HAN-Sub increased high arousal negative feelings, which in turn increased viewing active and passive harm as appropriate, which increased likelihood of engaging in active, IE = .86, *SE* = .16, *p* < .001, 95% CI [.58, 1.21], and passive harm respectively, IE = .72, *SE* = .18, *p* = .001, 95% CI [.37, 1.09]. We conducted Fischer Z transformations to compare directly the magnitude of the correlations between ideal HAN-Dom and ideal HAN-Sub

and their associations with the likelihood of engaging in active (Z = .339, *p* = .367) and passive harm (Z = −.931, *p* = .176) but there were no significant differences. There was also no consistent effect of age, gender, education, or actual HAN-Dom and HAN-Sub on HAN feelings and likelihood of engaging in harm toward outgroups.

In sum, contrary to Hypothesis 4, there was no difference between ideal HAN-Dom and ideal HAN-Sub in their associations with the likelihood of engaging in active and passive harm. Both were significant and comparable predictors of active and passive harm.

Discussion

As predicted, *valuing and wanting to feel* high arousal negative states—above and beyond the general tendency to actually experience HAN—was positively related to the reported likelihood of engaging in harm during hypothetical situations involving a cultural outgroup member. These effects were mediated by how much HAN

Table 5

Associations Between Actual Affect, Ideal Affect, and Responses to Control Scenarios (Study 1)

Predictors	HAN feelings ($R^2 = .23$)				View harm as appropriate ($R^2 = .08$)				Likelihood to engage in harm ($R^2 = .12$)			
	b	t Test	p	95% CI	b	t Test	p	95% CI	b	t Test	p	95% CI
Age	.01	0.68	.496	[−.01, .02]	.01	1.13	.258	[−.01, .03]	.01	0.99	.319	[−.01, .02]
Gender	**.16**	**2.18**	**.030**	**[.02, .31]**	−.01	−0.15	.881	[−.14, .12]	.06	1.11	.268	[−.05, .17]
Education level	−.03	−0.77	.442	[−.10, .04]	−.06	−1.88	.062	[−.12, .00]	−.04	−1.71	.089	[−.09, .01]
Actual HAP	**.13**	**2.08**	**.039**	**[.01, .26]**	.01	0.18	.859	[−.10, .12]	−.03	−0.60	.546	[−.12, .06]
Actual LAP	−.07	−1.14	.257	[−.20, .05]	.01	0.24	.811	[−.10, .13]	−.02	−0.45	.652	[−.12, .07]
Actual HAN	**.24**	**3.09**	**.002**	**[.09, .40]**	.08	1.17	.244	[−.06, .22]	.03	0.60	.548	[−.08, .15]
Actual LAN	.09	1.57	.119	[−.02, .21]	.00	0.07	.947	[−.10, .11]	−.02	−0.36	.718	[−.10, .07]
Ideal HAP	−.01	−0.13	.896	[−.15, .13]	.05	0.84	.403	[−.07, .18]	.00	0.01	.994	[−.11, .11]
Ideal LAP	.10	1.38	.169	[−.04, .25]	−.07	−0.98	.326	[−.20, .07]	.01	0.27	.787	[−.09, .12]
Ideal HAN	.08	0.64	.522	[−.16, .31]	.06	0.62	.537	[−.14, .27]	.09	1.04	.299	[−.08, .26]
Ideal LAN	.00	0.04	.968	[−.19, .20]	.04	0.45	.650	[−.13, .21]	.12	1.67	.095	[−.02, .27]
	Positive feelings ($R^2 = .42$)				View facilitation as appropriate ($R^2 = .06$)				Likelihood to engage in facilitation ($R^2 = .03$)			
Age	.00	0.07	.944	[−.01, .01]	−.00	−0.44	.658	[−.02, .03]	.01	0.73	.463	[−.01, .02]
Gender	**−.19**	**−3.13**	**.002**	**[−.30, .07]**	.03	0.32	.751	[−.04, .32]	.05	0.71	.479	[−.08, .18]
Education level	−.00	−0.09	.925	[−.06, .05]	−.01	−0.14	.885	[−.04, .13]	.02	0.61	.545	[−.04, .08]
Actual HAP	**.13**	**2.59**	**.010**	**[.03, .24]**	**−.16**	**−2.13**	**.034**	**[−.31, .01]**	−.07	−1.22	.224	[−.19, .04]
Actual LAP	.04	0.83	.407	[−.06, .15]	.08	1.11	.270	[−.05, .27]	.07	1.26	.207	[−.04, .19]
Actual HAN	−.06	−1.04	.298	[−.19, .06]	.06	0.66	.512	[−.27, .12]	.01	0.08	.936	[−.13, .14]
Actual LAN	.09	1.93	.054	[−.00, .18]	−.01	−0.15	.880	[−.07, .21]	−.00	−0.08	.935	[−.11, .10]
Ideal HAP	.06	1.11	.270	[−.05, .18]	.04	0.51	.608	[−.09, .26]	.07	1.08	.281	[−.06, .20]
Ideal LAP	.02	0.17	.862	[−.16, .19]	.04	0.49	.623	[−.07, .30]	.02	0.33	.738	[−.11, .16]
Ideal HAN	**.41**	**4.40**	**.000**	**[.23, .60]**	−.09	−0.64	.524	[−.62, −.05]	−.02	−0.19	.847	[−.23, .19]
Ideal LAN	.12	1.55	.122	[−.03, .28]	−.02	−0.21	.835	[−.24, .25]	.10	1.17	.243	[−.07, .28]

Note. Bold text indicates significant findings, $p < .05$.

people felt and how appropriate people viewed harm toward outgroups. Also as predicted, ideal HAP and ideal LAP were not correlated with any of the outcome variables in these scenarios, suggesting that ideal negative affect matters more for potentially threatening situations than does ideal positive affect. Moreover, ideal LAN was not correlated with likelihood of engaging in harm toward outgroups, suggesting that valuing HAN may specifically be related to harm toward outgroups. We did not observe these relationships during conflict situations that did not involve a cultural outgroup. Contrary to predictions, valuing HAN-Dom and HAN-Sub were both associated with greater likelihood of engaging in active and passive harm toward outgroups. These findings suggest that among European Americans, the valuation of HAN (both HAN-Dom and HAN-Sub), is associated with reported HAN feelings and similar types of harm toward outgroups.

One limitation of the above study is that it was conducted in the United States, which values high arousal positive states more than other cultures (e.g., Tsai et al., 2006). It is possible that this greater emphasis on HAP in the US generalizes to other high arousal states like HAN. Therefore, in the second study, we examined whether we would observe the same relationship between valuing HAN and increased harm against outgroups in two other cultural contexts, one that is similar to the United States in its valuation of HAP (i.e., Canada; Ruby et al., 2012), and one that values HAP (and perhaps other high arousal states like HAN) less than the United States (i.e., Taiwan; Tsai et al., 2016). In addition, given the emphasis on adjustment in many collectivistic East Asian contexts (Morling, Kitayama, & Miyamoto, 2002; Tsai et al., 2007) and consequently the greater value placed on low arousal positive states in East Asian

versus Western contexts, we predicted that Taiwanese would value LAN more than Canadians would.

We also predicted that given its greater emphasis on adjustment, Taiwanese would value HAN-Sub more and HAN-Dom less than Canadians, and that this would be related to a greater likelihood of engaging in passive (vs. active) harm among Taiwanese compared with Canadians. In other words, we revisited Hypothesis 4 in Study 1 with cultural samples that might provide greater variance in the variables of interest.

Study 2: Ideal Negative Affect and Responses to Outgroups in Canada and Taiwan

We first predicted that (a) Taiwanese would value HAN less, LAN more, HAN-Dom less, and HAN-Sub more than Canadians. We then examined whether the associations observed in Study 1 would generalize to the Study 2 sample. Specifically, we examined whether (b) ideal HAN would predict negative responses to cultural outgroups (HAN feelings, views of harm as appropriate, likelihood of engaging in harm) more than ideal LAN would, above and beyond actual HAN and actual LAN, and (c) the relationship between ideal HAN and likelihood of engaging in harm toward outgroups would be mediated by high arousal negative feelings and viewing harm as appropriate. Finally, because we predicted that Taiwanese would value HAN-Sub more and HAN-Dom less than Canadians, we also predicted that (d) Taiwanese participants would report a greater likelihood of engaging in passive (vs. active) harm compared with Canadians.

Figure 3
Mediational Model for Outgroup Scenarios (Study 1)
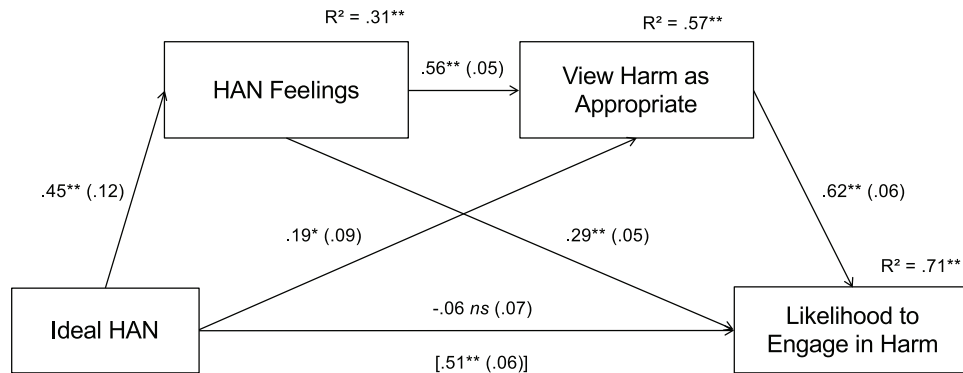
Note. Numbers on paths represent unstandardized regression coefficients; standard errors are in parentheses; c' paths are in brackets. HAN = high arousal negative.
* $p < .05$. ** $p < .01$.

Method

Participants

One hundred sixty-two European Canadian students from York University (78.4% female; age $M = 20.08$, $SD = 2.90$) and 170 Taiwanese students from National Taiwan University (71.2% female; age $M = 26.61$, $SD = 8.12$) took part to an online study in exchange for course credit. Because we were comparing participants from different cultures, we decided to recruit university students to control for education level. Canadian participants were all of European descent, and Taiwanese participants were all of East Asian descent (96.5% Han Chinese, 3.5% Taiwanese Aborigines). Power analyses using G*Power 3.1.3 (Erdfelder et al., 1996) indicated that a total sample size of approximatively 220 subjects was necessary for the study to have 80% power to detect a small-medium effect size ($f = .19$, as deduced from Study 1) at an α level of .05 (for ANCOVAs, four groups, $_{num}df = 1$, six covariates). To allow for attrition, we stopped data collection when we reached approximately 150 participants per cultural group. The majority of the participants had attended some university or community college (Canada: 89.5%; Taiwan: 95.9%) and were politically moderate (Canada: $M = 3.33$, $SD = 1.14$; Taiwan: $M = 3.54$, $SD = .85$). Perhaps not surprisingly, the groups significantly differed in the frequency of contact with people from different cultures, with Canadian participants reporting more frequent intergroup contact than Taiwanese on average (Canada: $M = 4.95$; $SD = .92$; Taiwan: $M = 2.82$, $SD = 1.05$; $M_{diff} = 1.23$, $SE = .11$, $t[330] = 11.30$, $p < .001$, 95% CI [1.01, 1.44]).

Measures

Instruments were translated and back-translated by Mandarin-English speaking research assistants, using standard translation techniques. European Canadians completed the measures in English; Taiwanese completed the measures in Mandarin.

Actual and Ideal Affect. To assess global actual and ideal affect, participants completed the Affect Valuation Index (AVI; Tsai et al., 2006), as in Study 1. Participants rated how often they "actually felt" and they would "ideally like to feel" various states "during a typical week" on a 1 to 5 scale (1 = *never*, 5 = *all of the time*). For cultural group comparisons of means, we calculated ipsatized scores to control for cultural differences in response styles. Specifically, we calculated the overall mean and overall SD for ideal affect scores, subtracted the overall mean from each ideal affect item, and divided this difference by the overall SD before calculating the aggregate scores. We followed the same procedure for actual affect items. We calculated the same aggregates as in Study 1. Means, SDs, and reliabilities for each of the actual and ideal aggregates by cultural group are reported in Table 6. However, because ipsatizing alters variance, we used the raw scores for the regression analyses, as in our previous work.

Responses to Cultural Outgroups. We used the same scenarios as in Study 1, and similarly assessed feelings, views of harm and facilitation as appropriate, and likelihood of engaging in harm and facilitation. As in Study 1, an exploratory factor analysis with varimax rotation conducted on reported feelings indicated that the existence of two factors in Canada and Taiwan, accounting for 59.87% and 70.04% of the observed variance in Canada and Taiwan, respectively: (a) positive (happy, curious, amused, excited, and calm; all factor loadings above .339) and (b) high arousal negative (nervous/anxious, scared, disgusted, upset, and angry; all factor loadings above .540) feelings. In addition, we established measurement equivalence of harm and facilitation items using Multigroup Confirmatory Factor Analyses (AMOS, Version 20) for both, see online Supplementary Materials, Section 5.

Reliabilities for feelings, views of harm and facilitation (active and passive) as appropriate, and likelihood to engage in harm and facilitation (active and passive) for each cultural group are shown in Table 6.

Demographics, Political Orientation, and Intergroup Contact. Participants completed a demographic questionnaire, which asked for participants' age, gender, level of education, and ethnicity. To ensure that our findings did not vary as a function of political orientation and frequency of intergroup contact, participants also answered the two questions from Study 1. Controlling for these variables did not change the pattern of results (see online Supplementary Materials, Section 6).

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Table 6

Descriptive Statistics for Ideal Affect, Actual Affect, and Responses to Outgroup and Control Scenarios (Study 2)

| | Canada | | | Taiwan | | | | Canada | | | Taiwan | | |
Measure	α	M	SD	α	M	SD	Measure	α	M	SD	α	M	SD
Ideal Affect							Actual affect						
HAN	.75	1.38	0.55	.62	1.49	0.50	HAN	.64	2.12	0.59	.44	2.14	0.57
LAN	.82	1.43	0.64	.52	1.74	0.64	LAN	.69	2.66	0.73	.55	2.66	0.70
HAN-Dom	.73	1.30	0.52	.73	1.25	0.41	HAN-Dom	.70	1.76	0.56	.73	1.93	0.67
HAN-Sub	.76	1.24	0.54	.69	1.76	0.89	HAN-Sub	.70	1.73	0.66	.63	2.02	0.71
Outgroup scenarios							Control scenarios						
Feelings							Feelings						
HAN	.90	1.60	0.53	.90	2.19	0.59	HAN	.85	2.36	0.54	.88	2.86	0.61
Positive	.81	2.54	0.63	.83	2.83	0.55	Positive	.81	1.78	0.44	.85	1.82	0.44
View as appropriate							View as appropriate						
Harm	.85	1.36	0.50	.74	1.65	0.45	Harm	.68	2.58	0.45	.66	2.89	0.40
Active	.68	1.31	0.54	.58	1.46	0.50	Active	.58	2.29	0.49	.63	2.42	0.48
Passive	.82	1.42	0.53	.63	1.83	0.52	Passive	.47	2.86	0.63	.44	3.36	0.56
Facilitation	.92	3.88	0.70	.90	4.07	0.54	Facilitation	.83	3.44	0.63	.78	3.42	0.53
Active	.87	3.71	0.84	.81	4.13	0.60	Active	.71	3.27	0.61	.60	3.23	0.52
Passive	.85	4.05	0.65	.80	4.01	0.54	Passive	.56	3.60	0.72	.67	3.62	0.63
Likelihood to engage							Likelihood to engage						
Harm	.84	1.61	0.51	.74	1.86	0.46	Harm	.60	2.77	0.37	.65	2.86	0.40
Active	.72	1.50	0.56	.55	1.60	0.51	Active	.60	2.45	0.48	.66	2.35	0.49
Passive	.77	1.71	0.56	.65	2.12	0.53	Passive	.39	3.09	0.54	.40	3.37	0.55
Facilitation	.90	3.55	0.62	.85	3.63	0.54	Facilitation	.71	3.15	0.49	.63	3.13	0.45
Active	.84	3.35	0.73	.74	3.62	0.60	Active	.59	2.98	0.51	.50	2.98	0.54
Passive	.80	3.75	0.61	.72	3.63	0.55	Passive	.49	3.32	0.58	.25	3.28	0.52

Note. HAN = high arousal negative states; LAN = low arousal negative states; Dom = dominant; Sub = submissive.

Procedure

Participants completed the measure of actual and ideal affect, the hypothetical scenarios, and the questions about the frequency of their intergroup contact, their political orientation, and demographics. We administered the same instruments as filler questionnaires as in Study 1; however, because they are not the focus of the present study, we will not discuss them further. These procedures were covered under the same IRB protocol as Study 1.

Transparency and Openness

Study 2 data and stimuli are available at https://osf.io/zxt94/ (Clobert, 2022). As in Study 1, we did not preregister our hypotheses because these data were collected before preregistration was common practice.

Results

Prior to testing our main hypotheses, we examined whether there were cultural differences in the valuation of HAN, LAN, HAN-Sub, and HAN-Dom.

Do Taiwanese Value LAN (Versus HAN) and HAN-Sub (Versus HAN-Dom) More Than European Canadians?

Means (raw) and *SD* are reported in Table 6. To test our hypotheses regarding cultural differences in the valuation of specific negative affective states, we conducted multivariate ANCOVA analyses on ipsatized ideal HAN, ideal LAN, ideal HAN-Dom, and ideal HAN-Sub, while controlling for actual affect, age, and gender. Contrary to predictions, there were no significant group differences in ideal HAN, $F(1, 317) = 2.625$, $p = .106$, $\eta^2 = .008$.

However, significant group differences did emerge for ideal LAN, $F(1, 317) = 9.554$, $p = .002$, $\eta^2 = .029$, ideal HAN-Dom, $F(1, 317) = 3.953$, $p = .048$, $\eta^2 = .012$, and ideal HAN-Sub, $F(1,317) = 13.522$, $p < .001$, $\eta^2 = .041$. As predicted, Taiwanese valued LAN ($M = -.806$, $SE = .048$; $Mdiff = .272$, $SE = .068$, $p < .001$, CI [.138, .406]) and HAN-Sub ($M = -.789$, $SE = .056$; $Mdiff = .479$, $SE = .080$, $p < .001$, CI [.321, .637]) more than did European Canadians (LAN: $M = -1.078$, $SE = .049$; HAN-Sub: $M = -1.268$, $SE = .058$). Although European Canadians ($M = -1.208$, $SE = .033$) valued HAN-Dom more than did Taiwanese ($M = -1.297$, $SE = .033$), this difference was only marginally significant ($Mdiff = .089$, $SE = .047$, $p = .057$, CI [−.002, .181]), as shown in Figure 4 (please note that ipsatized values are negative because positive states were included when calculating ipsatized scores, and across cultures, people value positive states more than negative states).

We also conducted pairwise t-tests to examine within-culture differences in the valuation of these states. Although European Canadians valued HAN and LAN, $t(161) = 1.495$, $p = .137$, similarly, they valued HAN-Dom more than HAN-Sub, $Mdiff = .060$, $SE = .029$, CI [.01, .12], $t(161) = 2.083$, $p = .039$, as predicted. Also as predicted, Taiwanese valued LAN more than HAN, $Mdiff = .256$, $SE = .037$, CI [.18, .33], $t(169) = 6.625$, $p < .001$, and valued HAN-Sub more than HAN-Dom, $Mdiff = .508$, $SE = .062$, CI [.38, .63], $t(169) = 8.137$, $p < .001$. Therefore, the majority of these findings suggest that our samples did indeed differ in their valuation of LAN, HAN-Dom, and HAN-Sub states. Next we examined whether the Study 1 associations held despite these differences.

Does Ideal HAN Predict Responses Toward Outgroups in Taiwan and Canada?

We examined whether ideal HAN predicted harm toward outgroups in Taiwan and Canada. Zero-order correlations are provided for each

cultural group in Table 7. We ran ANCOVAs, with high arousal negative feelings, views of harm as appropriate, and likelihood of engaging in harm as criterion variables; actual HAN/LAN, age, and gender as covariates, and culture, ideal HAN and LAN, and the interaction between culture and ideal HAN/LAN as predictor variables. Unlike Study 1, we did not include education level because participants were all college students. Estimates are provided in Table 8.

As predicted, ideal HAN predicted HAN feelings ($f(1, 315)$ = 13.553, $p < .001$, $\eta^2 = .041$), likelihood to engage in harm, $F(1, 315) = 5.503$, $p = .020$, $\eta^2 = .017$, and views of harm as appropriate, $F(1, 315) = 6.899$, $p = .009$, $\eta^2 = .021$, in response to the outgroup scenarios. These associations did not emerge for ideal LAN, actual HAN (except for HAN feelings), $F(1, 315) = 7.792$, $p = .006$, $\eta^2 = .024$, or actual LAN. Importantly, the effects of ideal HAN were not moderated by culture for any of the outcomes, $Fs(1, 315) = .261-2.694$, $ps = .610-.102$, $\eta s^2 = .001-.008$. Adding ideal and actual HAP and LAP in the models did not change the above results. In sum, we replicated Study 1 findings in Canadian and Taiwanese samples.

Does Ideal HAN Predict Responses to Control Scenarios in Taiwan and Canada?

As above, we ran multiple ANCOVAs, with high arousal negative feelings, views of harm as appropriate, and likelihood of engaging in harm as criterion variables; actual HAN/LAN, age, and gender as covariates, and culture, ideal HAN and LAN, and the interaction between culture and ideal HAN/LAN as predictor variables for responses to control scenarios. Zero order correlations are provided in Table 9. Whereas ideal HAN predicted HAN feelings in control scenarios, $F(1, 315) = 6.763$, $p = .010$, $\eta^2 = .021$, ideal HAN did not predict likelihood of engaging in harm, $F(1, 315) = .912$, $p = .340$, $\eta^2 = .003$, or views of harm as appropriate, $F(1, 315) = .080$, $p = .777$, $\eta^2 = .000$. The effect of ideal HAN was not moderated by culture for any of the outcomes, $Fs(1, 315) = .021-3.149$, $ps = .884-.077$, $\eta s^2 = .000-.010$, except for likelihood of engaging in facilitation, $F(1, 315) = 3.928$, $p = .048$, $\eta^2 = .012$.[7] In contrast, actual HAN predicted more HAN feelings in control scenarios, as well as fewer positive feelings and less likelihood of engaging in facilitation in the control scenarios. However, actual HAN did not predict likelihood of engaging in harm (see Table 10).

Together, these findings support Study 1 findings that ideal HAN predicts likelihood of engaging in harm primarily during cultural outgroup scenarios, not only in the United States, but also in Canada and Taiwan.

Is the Relationship Between Ideal HAN and Harm Toward Outgroups Mediated by High Arousal Negative Feelings and Views of Harm as Appropriate?

In light of the above results, we ran serial mediation models using a SPSS macro (PROCESS; model 6) designed by Hayes (2013) separately by culture. As predicted, we found that the indirect effect of ideal HAN on likelihood of engaging harm through HAN feelings and view of harm as appropriate was significant both in the European Canadian sample, IE = .13, $SE = .05$, 95% CI [.05, .24], and the Taiwanese sample, IE = .04, $SE = .02$, 95% CI [.01, .09]. Again, the reverse mediation model reported in Study 1 did not provide a better fit (Taiwan: IE = .02, $SE = .01$, 95% CI

Figure 4

Mean Differences (SD) in Valuation of Different Negative States in Canada and Taiwan (Study 2)
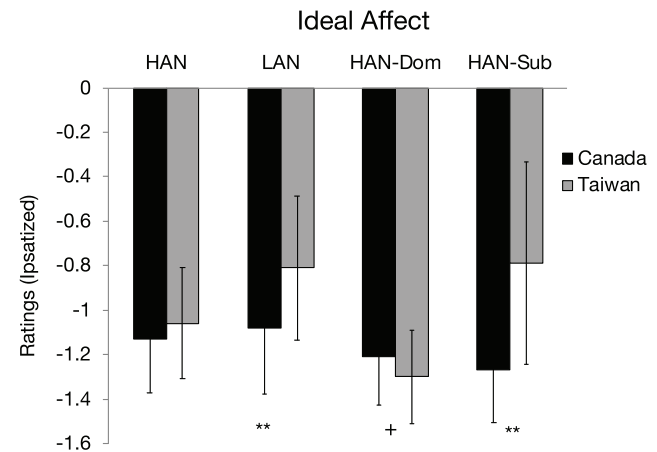
Note. Scores are ipsatized. Values are negative because positive states were included when calculating ipsatized scores, and across cultures, people value positive states more than negative states. HAN = high arousal negative; LAN = low arousal negative states; Dom = dominant; Sub = submissive.
[+] $p < .10$. [**] $p < .01$.

[−.00, .05]; European Canadians: IE = .05, $SE = .02$, 95% CI [.01, .09]). Regression coefficients are provided in Figure 5.

Are There Cultural Differences in Views of Active Versus Passive Harm as Appropriate and Likelihood of Engaging in Active Versus Passive Harm in Outgroup Scenarios?

We conducted multivariate ANCOVA analyses on views of active versus passive harm as appropriate and likelihood of engaging in active versus passive harm while controlling for age and gender. Significant between-group differences emerged for views of active harm as appropriate, $F(1, 323) = 5.164$, $p = .024$, $\eta^2 = .016$, views of passive harm as appropriate, $F(1, 323) = 29.766$, $p < .001$, $\eta^2 = .084$, and likelihood of engaging in passive harm, $F(1, 323) = 38.475$, $p < .001$, $\eta^2 = .106$, but not for likelihood of engaging in active harm, $F(1, 323) = 3.722$, $p = .055$, $\eta^2 = .011$. As predicted, Taiwanese reported viewing passive harm as more appropriate ($M = 1.84$, $SE = .041$; $Mdiff = .415$, $SE = .058$, $p < .001$, CI [.300, .529]) and reported greater likelihood of engaging in passive harm ($M = 2.123$, $SE = .042$; $Mdiff = .411$, $SE = .060$, $p < .001$, CI [.293, .529]) than did European Canadians (view passive harm as appropriate: $M = 1.420$, $SE = .042$; likelihood of engaging in passive harm: $M = 1.711$, $SE = .043$). However, contrary to our expectations, there were no group differences in the reported likelihood of engaging in active harm, and Taiwanese viewed active harm as more appropriate ($M = 1.459$, $SE = .040$; $Mdiff = .152$, $SE = .057$, $p = .008$, CI [.039, .264]) than did

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[7] Follow-up analyses revealed that this was driven by Taiwanese responses to the roommate conflict: the more Taiwanese valued HAN, the more likely they were to engage in facilitation in response to the roommate conflict ($b = .254$, $SE = .096$, 95% CI [.065, .444], $t(164) = 2.651$, $p = .009$). No such relationships emerged for the other scenarios or for the European Canadians.

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IDEAL AFFECT AND RESPONSES TO OUTGROUPS   15

Table 7
Zero-Order Pearson Correlations for Ideal Affect, Actual Affect, and Responses to Outgroup Scenarios for Canada (Taiwan; Study 2)

Measure	Feelings		Harms						Facilitation					
			View as appropriate			Likelihood to engage			View as appropriate			Likelihood to engage		
	HAN	Positive	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Ideal Affect														
HAN	.36 (.17)	.09 (.06)	.35 (.14)	.36 (.12)	.28 (.12)	.32 (.05)	.34 (.00)	.25 (.08)	−.27 (−.14)	−.22 (−.09)	−.29 (−.18)	−.19 (−.08)	−.12 (−.06)	−.23 (−.10)
LAN	.23 (.04)	.09 (−.00)	.29 (.16)	.32 (.11)	.22 (.17)	.24 (.04)	.25 (.01)	.19 (.06)	−.18 (−.22)	−.16 (−.17)	−.17 (−.26)	−.13 (−.19)	−.11 (−.15)	−.13 (−.22)
HAN-Dom	.42 (.21)	.07 (.06)	.44 (.24)	.48 (.21)	.34 (.21)	.40 (.14)	.42 (.13)	.32 (.12)	−.24 (−.24)	−.19 (−.20)	−.27 (−.26)	−.24 (−.13)	−.18 (−.09)	−.27 (−.14)
HAN-Sub	.45 (−.00)	.10 (.01)	.47 (.12)	.50 (.08)	.37 (.13)	.41 (−.06)	.43 (−.08)	.33 (−.03)	−.26 (−.05)	−.20 (−.03)	−.30 (−.07)	−.16 (−.07)	−.11 (−.04)	−.20 (−.08)
Actual Affect														
HAN	.34 (.18)	−.07 (−.16)	.18 (.01)	.20 (−.03)	.13 (.05)	.26 (−.03)	.23 (−.13)	.24 (.07)	−.29 (−.14)	−.23 (−.08)	−.32 (−.19)	−.24 (−.20)	−.19 (−.20)	−.26 (−.18)
LAN	.04 (.17)	.01 (−.04)	−.00 (−.10)	.03 (.08)	−.04 (.09)	.03 (.16)	.04 (.10)	.02 (.17)	.03 (−.12)	.03 (−.09)	.02 (−.15)	.01 (−.13)	.00 (−.13)	.01 (−.12)
HAN-Dom	.33 (.22)	−.04 (−.11)	.31 (.12)	.34 (.08)	.24 (.12)	.35 (.06)	.35 (−.05)	.29 (.15)	−.28 (−.17)	−.23 (−.12)	−.31 (−.20)	−.27 (−.22)	−.22 (−.22)	−.28 (−.19)
HAN-Sub	.33 (.20)	−.02 (−.10)	.25 (.11)	.24 (.05)	.22 (.13)	.27 (.06)	.23 (−.02)	.26 (.12)	−.25 (−.09)	−.23 (−.06)	−.24 (−.10)	−.22 (−.15)	−.22 (−.12)	−.18 (−.16)
Feelings														
HAN	/	−.12 (−.02)	.63 (.45)	.62 (.43)	.54 (.36)	.68 (.57)	.62 (.42)	.63 (.58)	−.45 (−.21)	−.35 (−.17)	−.51 (−.23)	−.42 (−.29)	−.32 (−.27)	−.48 (−.28)
Positive	−.12 (−.02)	/	−.03 (−.04)	−.02 (.07)	−.03 (.15)	−.27 (−.15)	−.16 (−.17)	−.32 (−.08)	.36 (.32)	.33 (.29)	.36 (.31)	.48 (.57)	.44 (.58)	.45 (.49)
Harm														
View as App.														
Total	.63 (.45)	−.03 (−.04)	/	.92 (.87)	.92 (.88)	.84 (.71)	.82 (.61)	.72 (.62)	−.48 (−.43)	−.38 (−.39)	−.55 (−.44)	−.42 (−.38)	−.34 (−.35)	−.45 (−.38)
Active	.62 (.43)	−.02 (.07)	.92 (.87)	/	.70 (.52)	.78 (.60)	.84 (.63)	.59 (.42)	−.42 (−.33)	−.30 (−.29)	−.51 (−.35)	−.36 (−.24)	−.25 (−.21)	−.43 (−.24)
Passive	.54 (.36)	−.03 (.15)	.92 (.88)	.70 (.52)	/	.77 (.64)	.67 (.43)	.73 (.67)	−.47 (−.42)	−.41 (−.38)	−.49 (−.41)	−.41 (−.42)	−.37 (−.39)	−.40 (−.41)
Lik. to Engage														
Total	.68 (.57)	−.27 (−.15)	.84 (.71)	.78 (.60)	.77 (.64)	/	.92 (.87)	.92 (.88)	−.64 (−.38)	−.54 (−.34)	−.67 (−.38)	−.63 (−.43)	−.53 (−.37)	−.64 (−.44)
Active	.62 (.42)	−.16 (−.17)	.82 (.61)	.84 (.63)	.67 (.43)	.92 (.87)	/	.69 (.52)	−.51 (−.36)	−.39 (−.34)	−.59 (−.34)	−.49 (−.33)	−.37 (−.30)	−.55 (−.34)
Passive	.63 (.58)	−.32 (−.08)	.72 (.62)	.59 (.42)	.73 (.67)	.92 (.88)	.69 (.52)	/	−.66 (−.30)	−.60 (−.25)	−.64 (−.33)	−.66 (−.42)	−.60 (−.36)	−.63 (−.43)
Facilitation														
View as App.														
Total	−.45 (−.21)	.36 (.32)	−.48 (−.43)	−.49 (−.33)	−.47 (−.42)	−.64 (−.38)	−.51 (−.36)	−.66 (−.30)	/	.95 (.96)	.92 (.95)	.81 (.71)	.75 (.63)	.76 (.70)
Active	−.35 (−.17)	.33 (.29)	−.38 (−.39)	−.30 (−.30)	−.41 (−.38)	−.54 (−.34)	−.39 (−.34)	−.60 (−.25)	.95 (.96)	/	.76 (.81)	.76 (.65)	.77 (.62)	.63 (.61)
Passive	−.51 (−.23)	.36 (.31)	−.55 (−.44)	−.51 (−.35)	−.49 (−.41)	−.67 (−.38)	−.59 (−.34)	−.64 (−.33)	.92 (.95)	.76 (.81)	/	.77 (.69)	.62 (.58)	.83 (.74)
Lik. to Engage														
Total	−.42 (−.30)	.48 (.57)	−.43 (−.38)	−.36 (−.24)	−.41 (−.42)	−.63 (−.43)	−.49 (−.33)	−.66 (−.42)	.81 (.71)	.76 (.65)	.77 (.69)	/	.94 (.95)	.91 (.94)
Active	−.32 (−.27)	.44 (.58)	−.34 (−.35)	−.25 (−.21)	−.37 (−.39)	−.53 (−.37)	−.37 (−.30)	−.60 (−.36)	.75 (.63)	.77 (.62)	.62 (.58)	.94 (.95)	/	.72 (.78)
Passive	−.48 (−.28)	.45 (.49)	−.45 (−.38)	−.43 (−.24)	−.40 (−.41)	−.64 (−.44)	−.55 (−.34)	−.63 (−.43)	.76 (.70)	.63 (.61)	.83 (.74)	.91 (.94)	.72 (.78)	/

Note. Numbers indicate zero-order Pearson correlation coefficients. Canada: $rs < .16$ = ns; $.16 < rs < .20 = p < .05$; $.20 < rs < .25 = p < .01$; $rs > .25 = p < .001$; Taiwan: $rs < .15$ = ns; $.15 < rs < .20 = p < .05$; $.20 < rs < .25 = p < .01$; $rs > .25 = p < .001$; HAN = high arousal negative states; LAN = low arousal negative states; Dom = dominant; Sub = submissive; App = appropriate; Lik = likelihood.

Table 8

Associations Between Ideal and Actual HAN and LAN and Responses Towards Outgroups Across Cultures (Study 2)

Predictor	HAN feelings				View harm as appropriate				Likelihood to engage in harm			
	b	t Test	p	95% CI	b	t Test	p	95% CI	b	t Test	p	95% CI
Age	−.00	−1.04	.301	[−.01, .00]	.01	1.39	.166	[−.00, .01]	−.00	−0.42	.677	[−.01, .01]
Gender	−.01	−0.16	.874	[−.15, .13]	−.06	−0.94	.350	[−.17, .06]	−.10	−1.68	.093	[−.22, .02]
Ideal HAN	**.35**	**2.93**	**.004**	**[.11, .59]**	**.26**	**2.57**	**.010**	**[.06, .46]**	**.29**	**2.75**	**.006**	**[.08, .50]**
Ideal LAN	−.08	−0.81	.417	[−.28, .12]	.06	0.67	.501	[−.11, .23]	−.01	−0.13	.898	[−.18, .16]
Actual HAN	**.17**	**2.79**	**.006**	**[.05, .29]**	−.02	−0.42	.671	[−.12, .08]	.02	0.46	.648	[−.08, .13]
Actual LAN	.04	0.84	.400	[−.05, .13]	.03	0.74	.460	[−.05, .10]	.05	1.34	.180	[−.02, .13]
Country	**.90**	**4.81**	**.000**	**[.53, 1.27]**	**.45**	**2.79**	**.006**	**[.13, .76]**	**.65**	**3.94**	**.000**	**[.32, .97]**
Country × Ideal HAN	−.08	−0.51	.610	[−.40, .23]	−.15	−1.08	.279	[−.42, .12]	−.23	−1.64	.102	[−.51, .05]
Country × Ideal LAN	−.09	−0.65	.516	[−.35, .17]	−.01	−0.09	.926	[−.23, .21]	−.03	−0.26	.795	[−.26, .20]
	Positive feelings				View facilitation as appropriate				Likelihood to engage in facilitation			
Age	−.00	−0.19	.850	[−.01, .01]	−.01	−1.32	.186	[−.02, .00]	.00	0.26	.792	[−.01, .01]
Gender	−.06	−0.79	.428	[−.21, .09]	.21	2.72	.007	[.06, .37]	.19	2.51	.013	[.04, .33]
Ideal HAN	.14	1.03	.304	[−.12, .39]	**−.29**	**−2.17**	**.031**	**[−.55, −.03]**	−.13	−1.07	.287	[−.38, .11]
Ideal LAN	.05	0.45	.652	[−.17, .27]	.04	0.34	.735	[−.18, .26]	.02	0.17	.862	[−.19, .23]
Actual HAN	**−.19**	**−2.94**	**.004**	**[−.33, −.06]**	**−.17**	**−2.58**	**.010**	**[−.31, −.04]**	**−.21**	**3.25**	**.001**	**[−.33, −.08]**
Actual LAN	.02	0.35	.730	[−.08, .12]	−.00	−0.05	.961	[−.10, .10]	−.00	−0.03	.981	[−.10, .10]
Country	.34	1.66	.099	[−.06, .75]	.04	0.20	.844	[−.37, .45]	−.07	−0.35	.726	[−.46, .32]
Country × Ideal HAN	.07	0.37	.709	[−.28, .41]	.30	1.66	.097	[−.05, .65]	.28	1.62	.105	[−.06, .61]
Country × Ideal LAN	−.10	−0.67	.501	[−.38, .19]	−.13	−0.85	.395	[−.42, .16]	−.14	−1.01	.313	[−.42, .13]

Note. Bold text indicates significant findings, $p < .05$.

European Canadians (M = 1.307, SE = .041), although the magnitude of the difference was much less pronounced than the cultural differences in views of passive harm as appropriate. These results are shown in Figure 6.

Does Valuing HAN-Dom Versus HAN-Sub Predict Active Versus Passive Harm, and Are Cultural Differences in Ideal HAN-Sub Related to Cultural Differences in Passive Harm in Outgroup Scenarios?

Finally, to examine whether ideal HAN-Dom and ideal HAN-Sub predicted different types of harm, and whether cultural differences in ideal HAN-Sub were linked to cultural differences in likelihood of engaging in passive harm, we conducted structural equation modeling analyses using AMOS 20 including age, gender, and actual HAN-Dom and HAN-Sub as control variables. The model (χ^2 = 309.617, df = 16, $p < .001$; $RMSEA$ = .23, NFI = .82; CFI = .82) and corresponding estimates, standard errors, and p-values are shown in Figure 7.

As predicted, ideal HAN-Dom and ideal HAN-Sub both predicted high arousal negative feelings during the scenarios. Valuing HAN-Dom predicted viewing active (but also marginally passive) harm as more appropriate, which in turn predicted likelihood of engaging in active (but not passive) harm. Valuing HAN-Sub marginally (p = .052) predicted viewing passive (but not active) harm as appropriate which in turn predicted greater likelihood of engaging in passive more than active harm. These findings suggest that when the samples provided greater variability in our variables of interest, the predicted links between specific types of ideal HAN (Dom, Sub) and specific types of harm (active, passive) emerged.

As shown in Figure 7, analyses also revealed that cultural differences in the likelihood of engaging in passive harm were mediated by cultural differences in ideal HAN-Sub via HAN feelings and viewing passive harm as appropriate (IE = .007, SE = .003, 95% CI

[.0012, .0013] obtained via PROCESS, model 6). As in Study 1, all of the findings reported above held when we controlled for political orientation and frequency of intergroup conflict.

Discussion

In summary, Taiwanese wanted to feel LAN and HAN-Sub more and HAN-Dom less than did European Canadians. Despite these cultural differences, in both cultural groups, the more people valued HAN, the more likely they were to engage in harm against cultural outgroups. Together, these findings suggest that the link between valuing HAN and likelihood of engaging in harm toward cultural outgroups holds across cultures, even when they differ in their valuation of different negative affective states. We also found evidence that valuing specific types of HAN predicted likelihood of engaging in specific types of harm. Moreover, cultural differences in ideal HAN-Sub were related to cultural differences in the likelihood of engaging in passive harm: Taiwanese wanted to feel HAN-Sub more, which was associated with greater HAN feelings, views of passive harm as more appropriate, and a greater likelihood of engaging in passive harm compared with European Canadians.

General Discussion

Previous research suggests that the more people tend to experience high arousal negative states, the more likely they are to engage in prejudice and discrimination against outgroups. Although most people report positive feelings and behavioral intentions when facing intergroup contact (perhaps due to self-presentation concerns), it is important to understand which factors predict negative feelings and reactions toward outgroups. In two studies, we provide correlational and cross-cultural evidence that *ideally wanting to feel* high arousal negative states (HAN) also increases people's likelihood of feeling HAN, their views of harm toward outgroups as appropriate, and their perceived likelihood of engaging in harm toward

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Table 9

Zero-Order Pearson Correlations Among Ideal Affect, Actual Affect, and Responses to Control Scenarios for Canada (Taiwan), (Study 2)

Measure	Feelings		Harm						Facilitation					
			View as appropriate			Likelihood to engage			View as appropriate			Likelihood to engage		
	HAN	Positive	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Ideal														
HAN	.24 (.15)	.29 (.26)	.03 (−.03)	.19 (.16)	−.11 (−.18)	.09 (.00)	.21 (.13)	−.06 (−.12)	−.25 (.01)	−.26 (.11)	−.21 (−.06)	−.13 (.06)	−.03 (.15)	−.19 (−.04)
LAN	.10 (.04)	.29 (.20)	.02 (−.02)	.14 (.21)	−.07 (−.21)	.02 (.00)	.09 (.18)	−.05 (−.16)	−.25 (−.08)	−.23 (−.01)	−.24 (−.13)	−.10 (−.02)	−.01 (.10)	−.15 (−.14)
HAN-Dom	.37 (.12)	.31 (.26)	.11 (−.06)	.25 (.12)	−.03 (−.20)	.19 (.01)	.29 (.09)	−.00 (−.07)	−.13 (−.05)	−.14 (.01)	−.11 (−.10)	−.14 (.05)	−.06 (.11)	−.18 (−.02)
HAN-Sub	.36 (−.03)	.44 (.16)	.17 (−.03)	.30 (.10)	.01 (−.13)	.17 (−.12)	.21 (.00)	.05 (−.18)	−.17 (.02)	−.17 (−.04)	−.15 (−.00)	−.11 (.00)	.00 (.05)	−.19 (−.05)
Actual														
HAN	.40 (.24)	.01 (−.01)	−.05 (−.01)	.010 (.05)	−.09 (−.06)	.11 (−.01)	.17 (.06)	.00 (−.07)	−.16 (−.08)	−.15 (−.02)	−.16 (−.11)	−.15 (−.09)	−.08 (−.09)	−.17 (−.22)
LAN	.13 (.24)	−.01 (.08)	−.02 (.05)	−.04 (−.10)	.00 (−.02)	.01 (.14)	.01 (.20)	.01 (.03)	−.05 (−.08)	−.06 (−.03)	−.04 (−.12)	−.12 (−.07)	−.13 (−.00)	−.08 (−.11)
HAN-Dom	.35 (.24)	.20 (.03)	.06 (.07)	.17 (.17)	−.04 (−.05)	.18 (.07)	.26 (.14)	.02 (−.02)	−.11 (−.12)	−.09 (−.06)	−.12 (−.15)	−.14 (−.09)	−.10 (−.09)	−.14 (−.18)
HAN-Sub	.35 (.15)	.17 (.09)	.03 (.05)	.06 (.07)	.00 (.01)	.11 (.06)	.07 (.07)	.09 (.02)	−.03 (−.01)	−.06 (.03)	−.01 (−.04)	−.05 (−.03)	−.05 (−.03)	−.04 (−.12)
Feelings														
HAN	/	.15 (.02)	.34 (.37)	.38 (.27)	.19 (.30)	.52 (.45)	.54 (.33)	.23 (.36)	−.03 (−.20)	−.02 (−.22)	−.05 (.16)	−.15 (.06)	−.02 (.08)	−.23 (.02)
Positive	.15 (.02)	/	.19 (−.02)	.28 (.11)	.06 (−.12)	.09 (−.04)	.12 (.09)	.01 (−.14)	.06 (.22)	.05 (.17)	.06 (.23)	.14 (.56)	.14 (.45)	.10 (.49)
Harm														
View as App.														
Total	.34 (.37)	.19 (−.02)	/	.75 (.72)	.86 (.80)	.64 (.71)	.42 (.46)	.50 (.61)	.15 (.05)	.16 (.05)	.13 (.04)	−.05 (−.08)	−.07 (−.07)	−.01 (−.07)
Active	.38 (.27)	.28 (.11)	.75 (.72)	/	.30 (.16)	.54 (.56)	.68 (.67)	.12 (.20)	−.13 (−.12)	−.07 (.00)	−.16 (−.21)	−.22 (−.05)	−.13 (.01)	−.25 (−.09)
Passive	.19 (.30)	.06 (−.12)	.86 (.80)	.30 (.16)	/	.50 (.52)	.07 (.08)	.62 (.69)	.32 (.17)	.28 (.07)	.32 (.23)	.10 (−.07)	−.00 (−.10)	.18 (−.02)
Lik. to Engage														
Total	.52 (.45)	.09 (−.04)	.64 (.71)	.54 (.56)	.50 (.52)	/	.68 (.73)	.76 (.79)	−.03 (.01)	−.04 (.04)	−.02 (−.01)	−.17 (−.04)	−.15 (−.01)	−.14 (−.07)
Active	.54 (.33)	.12 (.09)	.42 (.46)	.68 (.67)	.07 (.08)	.68 (.73)	/	.04 (.16)	−.18 (−.11)	−.15 (−.00)	−.19 (−.18)	−.29 (−.05)	−.16 (.06)	−.35 (−.15)
Passive	.23 (.36)	.01 (−.14)	.50 (.61)	.12 (.20)	.62 (.69)	.76 (.79)	.04 (.16)	/	.18 (.12)	.07 (.06)	.14 (.15)	.04 (−.02)	−.06 (−.07)	.12 (.03)
Facilitation														
View as App.														
Total	−.03 (−.20)	.06 (.22)	.15 (.05)	−.13 (−.12)	.32 (.17)	−.03 (.01)	−.18 (−.11)	.18 (.12)	/	.94 (.90)	.96 (.93)	.63 (.63)	.51 (.57)	.62 (.50)
Active	−.02 (−.22)	.05 (.17)	.16 (.05)	−.07 (.00)	.28 (.07)	−.04 (.04)	−.15 (−.00)	.07 (.06)	.94 (.90)	/	.80 (.69)	.59 (.58)	.54 (.64)	.51 (.33)
Passive	−.05 (.16)	.06 (.23)	.13 (.04)	−.16 (−.21)	.32 (.23)	−.02 (−.01)	−.19 (−.18)	.14 (.15)	.96 (.93)	.80 (.69)	/	.62 (.58)	.44 (.43)	.64 (.56)
Lik. to Engage														
Total	−.15 (.06)	.14 (.56)	−.05 (−.08)	−.22 (−.05)	.10 (−.07)	−.17 (−.04)	−.29 (−.05)	.04 (−.02)	.63 (.63)	.59 (.58)	.62 (.58)	/	.87 (.85)	.90 (.84)
Active	−.02 (.08)	.14 (.45)	−.07 (−.07)	−.13 (.01)	−.00 (−.10)	−.15 (−.01)	−.16 (.06)	−.06 (−.07)	.51 (.57)	.54 (.64)	.44 (.43)	.87 (.85)	/	.59 (.44)
Passive	−.23 (.02)	.10 (.50)	−.01 (−.07)	−.25 (−.09)	.18 (−.02)	−.14 (−.07)	−.35 (−.15)	.12 (.03)	.62 (.50)	.51 (.33)	.64 (.56)	.90 (.84)	.59 (.44)	/

Note. Numbers indicate zero-order Pearson correlation coefficients. Canada: $rs < .16$ = ns; $.16 < rs < .20 = p < .05$; $.20 < rs < .25 = p < .01$; $rs > .25 = p < .001$; Taiwan: $rs < .15$ = ns; $.15 < rs < .20 = p < .05$; $.20 < rs < .25 = p < .01$; $rs > .25 = p < .001$; HAN = high arousal negative states; LAN = low arousal negative states; Dom = dominant; Sub = submissive; App = appropriate; Lik = likelihood.

Table 10

Associations Between Ideal and Actual HAN and LAN and Responses During Control Scenarios Across Cultures (Study 2)

Predictor	HAN feelings				View harm as appropriate				Likelihood to engage in harm			
	b	*t* Test	*p*	95% CI	*b*	*t* Test	*p*	95% CI	*b*	*t* Test	*p*	95% CI
Age	−.00	−0.70	.482	[−.01, .01]	.00	1.00	.316	[−.00, .01]	−.00	−0.26	.798	[−.01, .01]
Gender	−.02	−0.26	.798	[−.16, .12]	−.04	−0.74	.457	[−.15, .07]	.02	0.43	.664	[−.07, .12]
Ideal HAN	**.28**	**2.34**	**.020**	**[.04, .52]**	.03	0.30	.766	[−.16, .22]	.12	1.47	.142	[−.04, .29]
Ideal LAN	−.17	−1.70	.089	[−.37, .03]	.01	0.14	.889	[−.15, .17]	−.07	−1.03	.304	[−.21, .07]
Actual HAN	**.24**	**3.99**	**.000**	**[.12, .36]**	−.05	−1.12	.263	[−.15, .04]	.00	0.05	.956	[−.08, .09]
Actual LAN	.08	1.75	.080	[−.01, .17]	.01	0.40	.686	[−.06, .09]	.03	0.98	.327	[−.03, .09]
Country	**.65**	**3.41**	**.001**	**[.27, 1.02]**	**.31**	**2.09**	**.038**	**[.02, .61]**	.14	1.06	.291	[−.12, .40]
Country × Ideal HAN	−.12	−0.76	.450	[−.44, .20]	−.02	−0.15	.884	[−.27, .23]	−.13	−1.19	.234	[−.36, .09]
Country × Ideal LAN	.05	0.38	.705	[−.21, .31]	−.00	−0.03	.975	[−.21, .20]	.10	1.03	.305	[−.09, .28]
	Positive feelings				View facilitation as appropriate				Likelihood to engage in facilitation			
Age	.00	0.86	.393	[−.00, .01]	−.00	−0.50	.614	[−.26, .15]	.00	0.00	.998	[−.01, .01]
Gender	**−.18**	**−3.33**	**.001**	**[−.29, −.07]**	**.17**	**2.29**	**.023**	**[.02, .32]**	.02	0.38	.701	[−.10, .14]
Ideal HAN	.17	1.83	.068	[−.01, .35]	−.12	−0.95	.343	[−.37, .13]	−.05	−0.50	.614	[−.26, .15]
Ideal LAN	.11	1.43	.154	[−.04, .27]	−.13	−1.26	.209	[−.34, .08]	−.00	−0.02	.981	[−.17, .17]
Actual HAN	**−.12**	**−2.49**	**.013**	**[−.21, −.02]**	−.09	−1.40	.162	[−.22, .04]	**−.14**	**−2.63**	**.009**	**[−.24, −.03]**
Actual LAN	.04	1.01	.315	[−.03, .10]	−.03	−0.73	.467	[−.13, .06]	−.03	−0.82	.410	[−.11, .04]
Country	−.01	−0.09	.930	[−.30, .27]	**−.43**	**−2.14**	**.033**	**[−.82, −.03]**	−.30	−1.81	.071	[−.62, .02]
Country × Ideal HAN	.12	0.95	.343	[−.13, .37]	.30	1.77	.077	[−.03, .64]	**.28**	**1.98**	**.048**	**[.00, .55]**
Country × Ideal LAN	−.11	−1.10	.273	[−.32, .09]	.04	0.30	.762	[−.23, .32]	−.07	−0.60	.550	[−.30, .16]

Note. Bold text indicates significant findings, $p < .05$.

outgroups in hypothetical scenarios, above and beyond their tendency to actually experience HAN. In Study 1, the more U.S. participants valued HAN, the more likely they were to endorse harm against outgroups in part because they felt more HAN and viewed harm as more appropriate. Because valuing low arousal negative states (LAN) did not predict harm, we conclude that the associations were specific to HAN. Importantly, these results did not emerge for scenarios involving interpersonal conflicts that did not involve cultural outgroup members (e.g., conflict with roommates, colleagues, waiters).

In Study 2, we demonstrated that the link between valuing HAN and people's likelihood of engaging in harm generalized to Canada and Taiwan. This is particularly important because the Taiwanese valued LAN and HAN-Sub more (and HAN-Dom marginally less) than European Canadians did. Despite these differences, across cultures, the more people valued HAN, the more likely they were to engage in harm toward cultural outgroups, above and beyond their actual experience of these states. In addition, we found that unlike Study 1, which focused just on European Americans in the United States, ideal HAN-Dom was associated with greater likelihood of

Figure 5

*Mediational Model for Outgroup Scenarios (Study 2)*
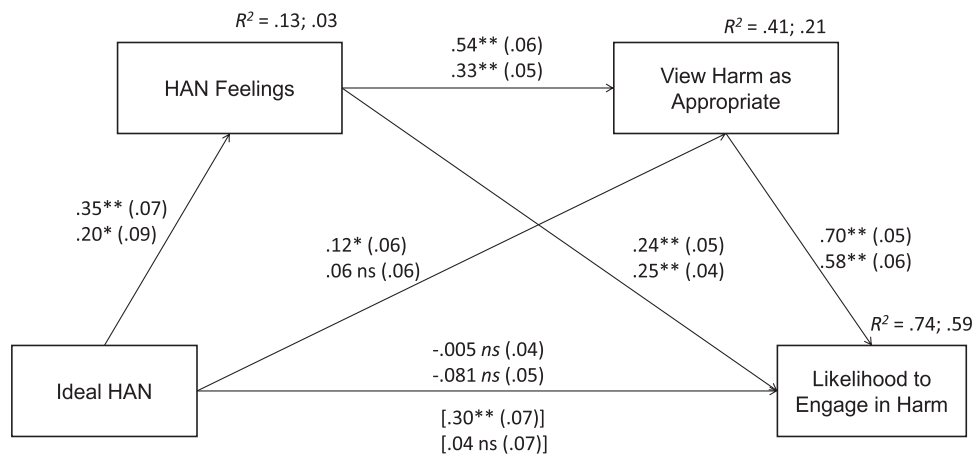
Note. Numbers on paths represent unstandardized regression coefficients; standard errors are in parentheses; c' paths are in brackets. Results for European Canadians are presented on top of or before results for Taiwanese. HAN = high arousal negative. *ns* = $p > .05$.
* $p < .05$. ** $p < .01$.

Figure 6

Means (SD) in Viewing Active and Passive Harm as Appropriate and Likelihood of Engaging in Active and Passive Harm by Cultural Group (Canada n = 162; Taiwan n = 170), (Study 2)
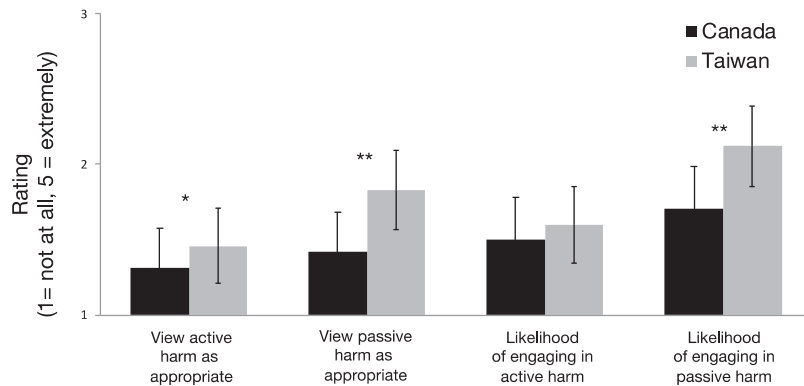
*Note.* * *p* < .05. ** *p* < .01, based on *F* statistics.

engaging in active harm, and ideal HAN-Sub was associated with greater likelihood of engaging in passive harm in the Canadian and Taiwanese samples. In other words, we found even more specific relationships between wanting to feel specific types of HAN and engaging in specific types of harm. Together, these findings suggest that the more people want to feel high arousal negative states in general, the more likely they are to engage in harm toward outgroups when placed in situations that make them uncomfortable. However, the specific type of harm they engage in may depend on whether they value more dominant or more submissive high arousal negative states.

Limitations and Future Directions

These studies are limited in ways that generate exciting directions for future research. First, we used hypothetical scenarios to assess responses to unspecified cultural outgroups. This allowed us to focus on situations in which people are coming into contact with cultural groups for which there is no obvious history of conflict. Future work, however, is obviously needed to examine whether the valuation of high arousal negative states predicts actual harmful behavior. As with most self-report data, it is difficult to determine the extent to which participants' reports reflect

Figure 7

Model Linking Culture and Likelihood of Engaging in Active and Passive Harm in Outgroup Scenarios (Study 2)
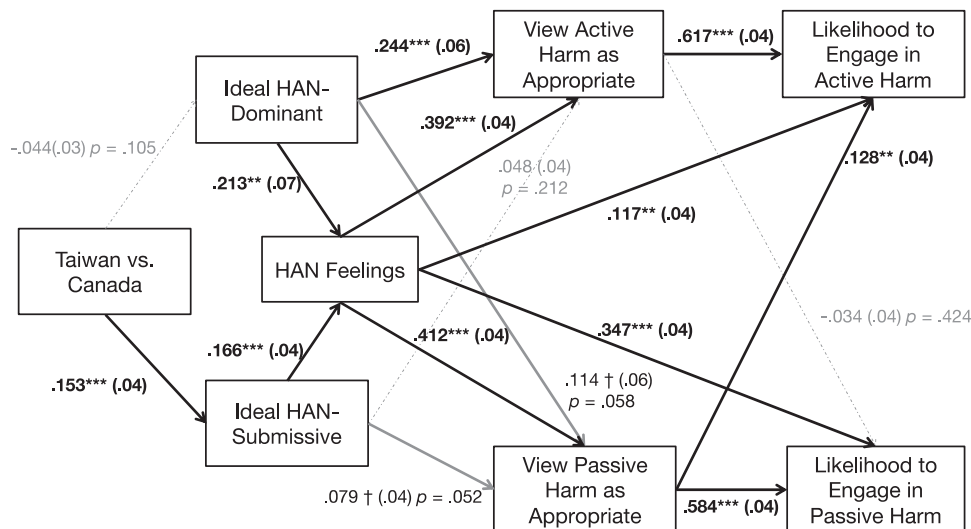
Note. Numbers on paths represent unstandardized regression coefficients; standard errors are in parentheses. HAN = high arousal negative.
† *p* < .10. ** *p* < .01. *** *p* < .001.

true responses or social desirability. However, because participants actually reported more positive than negative emotion, and more facilitative than harmful responses to the cultural outgroup scenarios, it seems unlikely that participants' reports of negative feelings, views of harm as appropriate, and likelihood of engaging in harmful behaviors were due to experimenter demand.

Nevertheless, it would be important to see whether our findings emerge with behavioral measures. Similarly, our studies suggest a specific mechanism through which ideal high arousal negative states increase the likelihood of harming cultural outgroups, but future studies need to test these mechanisms directly.

Second, we focused on potentially threatening situations with members of cultural outgroups whom we intentionally did not specify. Because the participants in our studies were all members of majority groups in their countries, it is likely that they were imagining ethnic minority groups as the cultural outgroups. Future studies should examine whether our findings emerge when majority group members are thinking about other cultural outgroups (e.g., other majority group members who practice different religions) or when minority group members are thinking about majority group members. In other words, more work is needed to examine the specific conditions under which these associations emerge. For example, although we found similar associations in the United States, Canada, and Taiwan, which have different national histories of immigration and levels of cultural tolerance, it would be important to examine the degree to which these factors play a role.

Third, we did not examine the function of these processes for feelings toward one's ingroup, even though work by Porat, Halperin, Tamir and colleagues as well as Smith and Mackie (2021) strongly suggest that experiencing and expressing specific emotions signals and strengthens group membership (e.g., Goldenberg et al., 2020). Future research should examine what effect these processes have on people's feelings of connection to their cultural ingroups as well as other group-based processes. Moreover, future studies should examine how the general valuation of specific negative states are related to other attitudes and views regarding negative emotion, including the negative states people want to avoid (Koopmann-Holm & Tsai, 2014) as well as other preferences for group-based emotions described above.

AQ: 7

Finally, whereas we focused on cultural variation, future research should focus on other sources of variability in the valuation of high arousal negative states. For example, although we found in both studies that political orientation did not change the pattern of our findings, we also observed in the United States and Canada (but not Taiwan), that the more politically conservative participants were, the more they valued high arousal negative states (see online Supplementary Materials, Section 6). Given the link between political conservatism, authoritarianism, and racism (Sidanius et al., 1996), it is possible that the valuation of high arousal negative states may be an affective precursor to racist behavior.

Implications for Affect Valuation Theory

These findings build on AVT in several ways. First, the work contributes to increasing evidence of cultural differences in the valuation of negative states (e.g., Boiger et al., 2013; Koopmann-Holm & Tsai, 2014; Miyamoto et al., 2010; Sims et al., 2015; Tamir, 2016). More specifically, high arousal dominant negative states, such as anger, are more socially accepted and valued in Canada, whereas high arousal submissive negative states, such as fear, are more acceptable in

Taiwan. Second, the findings support increasing evidence that ideal affect—above and beyond actual affect—shapes people's responses to others. Whereas previous research has focused on positive interactions (e.g., Park et al., 2020), the present research focused on negative interactions. Finally, and most importantly, our findings demonstrate that cultural differences in ideal *negative* affect (especially high arousal submissive states) are related to cultural differences in the likelihood of engaging in specific types of harm (especially passive harm) against outgroups.

Implications for Emotion, Prejudice, and Harm Toward Outgroups

With hate crimes on the rise in the United States (Hate Crime Statistics, 2017), understanding the factors that promote harm toward cultural outgroups becomes increasingly important. The present findings provide more evidence that emotions play a central role in predicting responses to outgroups. Whereas previous work shows that a greater tendency to experience specific negative emotions increases the likelihood that people will be prejudiced toward specific historical outgroups, this work demonstrates that greater overall *valuation* of high arousal negative states also increases the likelihood that people will react negatively to cultural outgroups with whom they may be engaging with for the first time. Whereas other researchers have already demonstrated the role of group-based emotional preferences on endorsement of prejudicial policies, the current work is first to demonstrate the role that more general affective values and ideals play in responses to unfamiliar cultural outgroups during everyday interactions. Moreover, we offer a tool to assess not only feelings and behavioral intentions toward cultural outgroups but also beliefs about the appropriateness of specific reactions in response to everyday situations. Our tool—inspired by the BIAS map (Cuddy et al., 2007)—simultaneously assesses passive and active, positive and negative responses toward outgroups. Finally, the work advances our understanding of the role that culture plays in prejudice and discrimination, a topic that has been relatively understudied in the literature.

Understanding the role of affective values in shaping responses to cultural groups may ultimately inform interventions aimed at promoting social cohesion and tolerance because affective values are malleable and socially transmitted. Our previous work demonstrates that one way in which people learn to want to feel a certain way is through exposure to popular forms of media (Tsai, Louie, Chen, et al., 2007, 2016). Moreover, in the United States, news articles about minorities contain more high arousal negative affect than news articles about other topics (Clobert & Tsai, 2022), and the social media of more biased news sources contain more high arousal negative affective content than more balanced news sources (Bellovary et al., 2021; Knutson et al., 2022). Finally, high arousal negative affect is more contagious on social media in the United States than in Japan (Hsu et al., 2021). Together, these findings raise the intriguing possibility that one way to promote tolerance and cohesion in the United States and other multicultural societies may be to limit or block consumers' exposure to news and other media outlets that may intentionally or unintentionally increase their valuation of high arousal negative affect.

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