

# Hate: Toward Understanding Its Distinctive Features Across Interpersonal and Intergroup Targets

Cristhian A. Martínez, Jan-Willem van Prooijen, and Paul A. M. Van Lange

Department of Experimental and Applied Psychology, Institute for Brain and Behavior Amsterdam (IBBA),  
Vrije Universiteit Amsterdam

Is hate fundamentally different from other negative emotions? Despite a fair amount of theorizing about hate, there is little empirical evidence that helps to answer this basic question. The present research examines how people construe interpersonal and intergroup hate and provides an empirical analysis of how hate is conceptually different from dislike, anger, contempt, and disgust. In five preregistered studies, using exploratory (Pilot Study) and confirmatory (Studies 1, and 2a through 2c) within-subjects designs, we asked adult participants in the United States ( $N_{total} = 1,074$ ) to describe examples of their interpersonal and intergroup targets of hate, dislike, anger, contempt, and disgust. We assessed their subjective experiences of each emotion by measuring the associated intensity, duration, arousal, valence, perceived threats, and action tendencies. Across studies, results revealed that participants feel consistently more emotionally aroused, personally threatened, and inclined toward attack-oriented behaviors when experiencing hate as compared with dislike, anger, contempt and disgust toward interpersonal targets. At the intergroup level, results revealed that participants experience hate as more arousing than the three moral emotions, more intense than dislike, anger and contempt, and feel more inclined toward attack-oriented behaviors than when they feel dislike and contempt. Results are in line with a general pattern of increasing differentiation suggesting that hate is conceptually closer to disgust and contempt than to anger and dislike. We discuss the specific differences and similarities between hate and these emotions across targets and their implications for future research on hate and negative emotions.

**Keywords:** anger, contempt, disgust, dislike, hate

**Supplemental materials:** <https://doi.org/10.1037/emo0001056.supp>

In November 2018, during a Trump rally in Wisconsin a 40-year-old male supporter was asked who he regards as political enemies, and whether “hate” is a strong word. After listing some Democrat targets he replied: “Not at all [...] I have a deep and absolute disgust for these human beings [...] they want to turn America into a socialist country. It’s disgusting.” Then, after being asked about how far he was prepared to take his hatred, he recalled a story about his Democrat sister in which he told her: “If there is a civil war in this country and you were on the wrong side, I would have no problem to shooting you in the face” (Pilkington, 2018).

Hate is a broad construct; people can hate individuals, groups, and even abstract objects. For instance, it is common to hear people claiming to hate or strongly dislike abstract targets such as traffic jams, drama, or injustice. But relevant to the social world, people may hate specific individuals and groups—such as offenders who victimized them, ex-partners, or despised political out-groups—and they elaborate on their experience of hate by reporting discrete emotions such as disgust or contempt, or threats toward themselves or their in-groups. Hate inquiry dates back to Aristotle (384–322 B.C.E), who believed that hate rises without previous offense, is remorseless for the person experiencing it, incurable by time, and strives for the annihilation of its target. Later on, Darwin (1872) provided one of the first scientific accounts of hate, describing it as a feeling that lacks a distinct facial sign and manifests itself as rage (Royzman et al., 2005). More recently, neuroscience research has made the first steps toward mapping a hate circuit in the brain involving the putamen, the insula and the frontal cortex (Zeki & Romaya, 2008). But what is hate exactly? Most typically, hate is conceptualized as an extreme form of dislike, as well as an amplified version of specific emotions such as anger, disgust, or contempt (Allport, 1954; Aumer & Hatfield, 2007; Ben-Ze’ev, 2000; Darwin, 1872; Frijda, 1986; Staub, 2005). However, is hate indeed conceptually the same as dislike and these emotions? And if not, how is hate different from dislike and these emotions?

Considerable theorizing has described what hate is, how it develops, how it relates to other discrete emotions, and what its

This article was published Online First December 30, 2021.

Cristhian A. Martínez  <https://orcid.org/0000-0001-7517-023X>

Jan-Willem van Prooijen  <https://orcid.org/0000-0001-6236-0819>

Paul A. M. Van Lange  <https://orcid.org/0000-0001-7774-6984>

This work was supported by the Administrative Department of Science, Technology, and Innovation (Colciencias) [Scholarship 783, 2017].

All materials, preregistrations, and analyses are available in the Open Science Framework (<https://osf.io/pyza2/>).

Correspondence concerning this article should be addressed to Cristhian A. Martínez, Department of Experimental and Applied Psychology, Institute for Brain and Behavior Amsterdam (IBBA), Vrije Universiteit Amsterdam, Van der Boechorststraat 7, Room C576, Amsterdam, 1081 BT, the Netherlands. Email: [c.a.martinez@vu.nl](mailto:c.a.martinez@vu.nl)

cognitive, motivational, and behavioral characteristics are (e.g., Allport, 1954; Brewer, 1999; Fischer et al., 2018; Kucuk, 2016; Royzman et al., 2005; Staub, 2005; Sternberg & Sternberg, 2008). Nevertheless, research testing this theorizing empirically is remarkably scarce (Halperin et al., 2012; Royzman et al., 2005; Sternberg & Sternberg, 2008), and only a handful of studies have focused on the differences between hate and other emotional experiences such as anger, fear or dislike (Fischer et al., 2018; Halperin, 2008; Roseman & Steele, 2018; Van Bavel et al., 2018).

The main goal of the present research is to fill this gap and address the distinctive features of hate by examining its similarities and differences with the general state of dislike (Pilot Study and Study 1), and with three of the most common negative emotions associated with hate: anger, contempt and disgust (Studies 2a–2c). In doing so, we test their similarities and differences in intensity, valence, arousal, duration, threat perceptions, and attack versus withdraw action tendencies. Finally, because hate, as well as dislike and negative emotions, may be activated in interpersonal contexts (e.g., among neighbors, ex-partners) or intergroup contexts (e.g., among political parties, ethnic conflict), we examine both interpersonal and intergroup targets that are at the root of hate for the sake of generalization of the differences.

### The Nature and Distinctive Properties of Hate

The definition of hate and its relation to other negative states and emotions have received considerable scientific debate, yet without reaching strong consensus. For example, hate has been conceptualized as an emotion, an emotional attitude, a sentiment, a chronic secondary emotion, or a generalized visceral emotion (Allport, 1954; Opatow & McClelland, 2007; Sternberg, 2003; Sternberg & Sternberg, 2008). Moreover, hate has been described as a dynamic process involving an intense negative view of its targets, ideological-driven changes in people's worldviews, and a readiness to do harm (Opatow & McClelland, 2007; Staub, 2005).

Hate can develop both in interpersonal and intergroup relationships as a strong emotion. At the intergroup level, hate plays a role in for instance intergroup intractable conflicts (Halperin, 2008), political intolerance (Halperin et al., 2009), and war (Halperin et al., 2011). At the interpersonal level, hate has been characterized as the counterpart of love (Aumer et al., 2016; Jin et al., 2017), another strong and long lasting feeling with shared characteristics like its duration and intensity (Ben-Ze'ev, 2018), especially toward close targets (Aumer & Hatfield, 2007). Although there is theoretical agreement on characterizing hate as an intense and enduring emotion intended to harm its targets, its multidimensional nature is still difficult to grasp and is yet unclear. Despite hate's relevance in people's interpersonal and intergroup relationships, it is often understood as either the extreme version of dislike, or a blend of other negative emotions such as anger, contempt, and disgust. However, there is no research that has examined similarities and differences between hate and dislike, or any of the three emotions (Fischer & Giner-Sorolla, 2016).

Accordingly, we propose that hate has distinctive features that make it different from these emotions. To begin with, dislike might be assumed to be the most general negative state and therefore constitutes a natural benchmark for assessing similarities and differences with hate (e.g., Darwin, 1872; Miller,

2009). Indeed, dislike can be understood just as a general affective preference which may guide different actions and decisions (e.g., Lindsen et al., 2011; Yilmaz et al., 2014). In addition to differences from dislike, we also expect more specific distinctions between hate and the triad of the so called moral emotions (CAD: contempt, anger, and disgust; Rozin et al., 1999). As we will argue, hate is often associated with moral violations (Van Bavel et al., 2018), and unlike dislike, past research has shown that anger, contempt and disgust are basic discrete negative emotions (Ekman, 1992; Ekman et al., 1987; Tracy & Randles, 2011). In the following, we provide an overview of unique features of hate.

### Hate Duration and Intensity

In terms of duration, hate's single episodes take more time to dissipate compared with other discrete emotions like anger (Verduyn & Lavrijsen, 2015), as it can remain dormant for decades (even across generations) waiting to be triggered (Sternberg, 2003). Lay people deem hate as an extreme, long-term, and highly emotional experience (Halperin, 2008) and report more long-lasting hate than short-term hate toward different out-groups (Halperin et al., 2012). In terms of intensity, it has been suggested that people experience hate with higher intensity than dislike (Goodvin et al., 2018). Previous attempts to categorize hate by intensity have proposed mild, moderate, and severe degrees of hate, with subcategories within each level (Sternberg & Sternberg, 2008), but without enough empirical evidence for such a taxonomy. Although previous theorizing point toward the same conclusions, namely that hate is a remarkably intense and enduring emotion, empirical research has yet to test these lines of reasoning. Therefore, we include duration and intensity as relevant dimensions for characterizing hate and expect higher intensity and duration scores for hate as compared with dislike, anger, contempt, and disgust across targets.

### Hate Motivations

Previous theorizing suggests that a key motivational goal underlying hate is to protect individuals from pertinent threats in the social environment. It has been assumed that hate emerges in the presence of a number of threats to the self, the in-group, or cultural values (Staub, 2005). For example, hate is associated with threats to life, freedom, resources, ideas, and the fulfillment of basic needs (Fromm, 1992; Staub, 2011), threats to self-esteem, self-interest, and personal goals (Baumeister & Butz, 2005; Beck, 2000), and threats to justice (Kucuk, 2016; Opatow & McClelland, 2007; Van Doorn, 2018). Also, hate is most likely to emerge in the presence of moral violations (Van Bavel et al., 2018) and when targets are perceived as essentially bad, immoral, and dangerous (Baumeister, 1997). However, few empirical studies have tested this association between threat and hate. At an interpersonal level, it has been speculated that hate serves isolated functions such as self-redress after interpersonal conflicts, motivating revenge, communicating emotional states, or reestablishing autonomy (Aumer & Bahn, 2016; Rempel & Sutherland, 2016). At the intergroup level, hate has been described as functional for political behaviors such as affiliation and in-group cohesion (Halperin et al., 2012). We aim to

provide a common ground to these findings by proposing that as compared with targets of other negative discrete emotions, people perceive hated targets as more threatening, both to themselves and to the broader community.<sup>1</sup>

## Hate Action Tendencies

It has been typically argued that hate's particular goal is harming or eliminating its targets (Allport, 1954; Baumeister & Butz, 2005; Fischer et al., 2018; Staub, 2005; Sternberg & Sternberg, 2008), placing attack-oriented behaviors as another key element of hate to examine. Hate has been linked to attack action tendencies ranging from verbal aggression and hate speech to moral exclusion, physical aggression, and extreme violence (Chetty & Alathur, 2018; Opatow & McClelland, 2007; Sternberg, 2003). Alternatively, other studies have suggested instead that hate's broader goal is to keep the targets out of one's life, associating hate to avoidance-oriented action tendencies (Aumer & Bahn, 2016; Roseman & Steele, 2018). The distinctive action tendencies of anger, contempt, and disgust are less controversial. It is well-established that whereas anger prepares individuals for approach-oriented behaviors, disgust, and contempt promote avoidant-oriented behaviors (Hutcherson & Gross, 2011). Disgust aims at avoiding infectious agents, undesired sexual contact, and, more relevant for the present purposes, immoral actions and individuals (Tybur et al., 2009). On the other hand, contempt is associated with looking down, derogating, and excluding the targets (Schriber et al., 2017). Thus, whereas anger is primarily focused on changing a target's unwanted behaviors, and contempt and disgust are focused on excluding and avoiding the targets, hate is focused on the target itself, and aims to physically, socially or symbolically eliminate it (Fischer et al., 2018). We expect, therefore, that as compared with dislike, anger, contempt, and disgust, hate will elicit more attack-oriented and less withdraw-oriented behaviors.<sup>2</sup> However, there are many ways to cause hate-motivated harm in interpersonal relationships without necessarily engaging in physical violence (Rempel & Sutherland, 2016), and it is rather unlikely for a single individual to eliminate or harm an entire group. Thus, we also argue that hate's attack-oriented behaviors do not necessarily always take extreme forms such as aggression or violence and hate is more common than imagined in everyday life. In this way, we examine here a set of mild attack-oriented behaviors (e.g., criticizing, or confronting) to generalize the action tendencies that hate can take.

## The Current Research

To summarize, we advance four propositions relevant to the conceptualization of hate. Specifically, we propose that as compared with dislike, anger, contempt, and disgust, hate is: (a) more intense and longer in duration; (b) evokes higher levels of perceived threats to the self and the in-group<sup>3</sup>; (c) promotes higher attack-oriented and lower withdraw-oriented behaviors; and (d) in comparison with the three moral emotions is experienced as more negative and emotionally arousing. To examine these four propositions, we designed five studies. In the Pilot Study, we ask participants to describe their hate and dislike targets and we conduct exploratory analyses of the differences between hate and dislike regarding their intensity, duration, threat perceptions, and action tendencies across interpersonal and intergroup targets. In Study 1, we conduct a confirmatory test of preregistered predictions regarding

the differences between hate and dislike derived from the pilot results, using a full within-subjects experimental design. We ask participants to report four different (two hated and two disliked) interpersonal and intergroup targets, and we compare the same set of outcome variables controlling for random effects. Finally, in Studies 2a, 2b and 2c we extend the findings of Study 1 by comparing hate versus anger (Study 2a), hate versus contempt (Study 2b) and hate versus disgust (Study 2c) on the same dimensions and additionally including valence and arousal measures. All the five studies were approved by the ethics board of the Vrije Universiteit Amsterdam and were preregistered. All materials, preregistrations, and analyses are available in the open science framework (<https://osf.io/pyza2/>; Martínez et al., 2021).

## Pilot Study

In this first exploratory Pilot Study we summarize and analyze previous converging factors associated with hate to provide initial empirical indications of how hate differs from dislike in intensity, duration, personal and social threat perceptions, and attack and withdraw action tendencies, as well as how people conceptualize these emotions across targets.<sup>4</sup>

## Method

### Participants

We recruited an initial adult random sample of  $N = 504$  participants from the United States via Amazon MTurk. Then, we excluded participants which: (a) provided incomplete answers or

<sup>1</sup> Based on the definition of threat proposed by the intergroup threat theory (Riek et al., 2006; Stephan et al., 2009), in the present research we adopt a broad conceptualization of threat, understood as the perception of past, present or potential future harm, to one's or own group's well-being, posed by individuals or out-groups by virtue of their beliefs, actions or characteristics. We address in our instrument two broad categories: interpersonal threats (to goals, safety, self-esteem, lifestyle, well-being, and rights) and intergroup threats (to society, freedom, cultural values, economy, progress, and justice).

<sup>2</sup> In the present research we conceptualize attack-oriented behaviors as a specific subset of approach behaviors intended to physically or psychologically harm or punish the targets in different degrees. We conceptualize withdraw-oriented behaviors as behaviors intended to physically or psychologically avoid the targets or the situations involving them to withdraw from confrontation or conflict.

<sup>3</sup> Although the intergroup condition in the present research aims to the broad social group, we should acknowledge that hate can extend the self to include close others that do not necessarily represent "the entire in-group." For example, it is possible that hate is rooted in perceived threats to one's partner, children, best friend, or even most favorite colleague. Indeed, some literature on self-expansion and relationships supports this possibility (Aron & Aron, 1996; Rusbult & Van Lange, 2003).

<sup>4</sup> In the Pilot Study we also asked participants about their abstract hate targets, but we focus on interpersonal and intergroup relations in the present research. We conducted qualitative analyses of the specific abstract, interpersonal and intergroup targets that participants reported. The emergent categories are summarized in the [online supplemental materials](#) (Figures and Tables S1–S3 in the online supplemental materials). We also measured 15 discrete emotions associated with participant's hate experiences and conducted an exploratory factor analysis to examine how the emotions cluster together. Descriptive statistics and differences by target and emotion, as well as the EFA results are reported in the online supplemental materials (Tables S4 to S7).



did not answer the sociodemographic form ( $N = 102$ ); and (b) provided incoherent answers in the open-ended questions (e.g., random letters, characters or sentences;  $N = 4$ ), obtaining a sample of  $N = 398$ , 56% males and 44% females, age ranging between 21 and 72 years ( $M = 36.5$   $SD = 10.7$ ). A sensitivity power analyses using G\*power 3.1 (Faul et al., 2007), setting  $\alpha = .05$ , and power = .80, indicated that the final sample size was enough for reliably detecting small effect sizes using General Linear Models  $f = .07$ .<sup>5</sup> Scores of participants who reported not having a hate or dislike target in only one of the two conditions (personal  $N = 1$ , group  $N = 10$ ) were coded as missing.

### Instruments and Procedure

Participants first read the instructions, agreed with the informed consent, and then proceeded with the questionnaire. The questionnaire was designed in Qualtrics and was divided into two sections in which each participant described their hate or dislike toward a specific person and a group. We initially asked participants to report a hate target, and then we included the following instruction: "If you cannot think of [someone/a group] you really hate or have hated, please think of [someone/a group] you really dislike or have disliked," as well as a dichotomous check "what feeling best describe what you report in your previous answer? (a) Hate, (b) Dislike." Then, we asked them to explain in a short paragraph how they have come to experience hate or dislike toward their targets. We measured intensity with the item "how intense do you consider were/are the hate or dislike feelings toward [this person/this group]?" on a 5-point scale (1 = *very mild*, 5 = *very severe*). We measured duration with the item "for how long did you feel that way?" scored on a 5-point scale (1 = *less than a day*; 2 = *between a day and a week*; 3 = *between a week and a month*; 4 = *between a month and a year*; and 5 = *more than a year*).

To measure threat perceptions, we used a 12 items scored on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*) in which six items measured personal threats (e.g., "he or she is a threat to my personal safety," "he or she is an obstacle to achieve my goals";  $\alpha_{\text{personal}} = .84$ ;  $\alpha_{\text{group}} = .87$ ) and six items measured social threats (e.g., "they are a threat to the economy," "he or she is a threat to society";  $\alpha_{\text{personal}} = .89$ ;  $\alpha_{\text{group}} = .88$ ) and we computed an average index for each subscale. To measure action tendencies participants were presented with a counterbalanced list of 12 behaviors, six attack-oriented (*attack*, *revenge*, *harm*, *confront*, *criticize*, *offend*), and six withdraw-oriented (*avoid*, *withdraw*, *concede*, *ignore*, *forgive*, *forget*), and we asked them to choose within the list "the actions do you performed (or thought of performing) toward the [person/group] you mentioned before," stressing that more than one could be chosen. Then, we computed their answers into two 7-point indexes from 0 to 6, one for attack-oriented behaviors and one for withdraw-oriented behaviors, by adding the number of behaviors chosen for each type of action. Finally, we asked participants to score on a 5-point scale (1 = *not at all*, 5 = *extremely*) the extent to which they felt 11 negative emotions when thinking about their targets (*anger*, *contempt*, *disgust*, *hostility*, *disdain*, *dislike*, *fear*, *indignation*, *humiliation*, *helplessness*, and *powerlessness*). At the end of the questionnaire participants filled a sociodemographic form, application control questions, and were debriefed. The survey took on average 13.51 minutes and participants were paid \$2 for their participation.

### Design and Analytical Strategy

We employed a 2 (emotion)  $\times$  2 (target) factorial design using emotion (hate/dislike) as a between-subjects factor and target (interpersonal/intergroup) as a within-subjects factor. For analyzing the main effects and interactions we fitted separate multilevel models (MLM's) for each dependent variable entering subject as the random factor with random intercepts, main analyses were performed using the *lmer* package for R (Kuznetsova et al., 2017). For reporting the results of each model, type III ANOVAs for the fixed effects were conducted using the Satterthwaite's method for multiple degrees of freedom. Multivariate outliers were screened using Mahalanobis distances. 23 outliers with values greater than the  $\chi^2$  cutoff for  $p = .001$  with  $df = 26$ , were removed from the analyses.<sup>6</sup>

### Results and Discussion

Following our instruction to bring to mind hate, we found that a majority was able to do so. More participants brought to mind a person or group they hated (63%) than an individual or group they disliked (37%),  $Z = -6.90$ ,  $SE = .10$ ,  $p < .001$ , 95% CI  $[-.96, -.53]$ , and therefore they self-assigned to the hate and dislike conditions respectively in those proportions. Specifically, more participants reported having experienced hate (68%) rather than dislike (32.0%) toward their individual targets, and hate (57.9%) rather than dislike (42.1%) toward groups,  $Z = 2.88$ ,  $SE = .15$ ,  $p < .01$ , 95% CI  $[.13, .73]$ . These findings provide initial evidence for the broad notion that many people can think of another person or group that they hate, especially with regard to specific individuals.

#### Intensity

Results revealed a significant main effect on intensity by emotion,  $F(1, 757) = 122.35$ ,  $p < .001$ ,  $\omega_p^2 = .14$ , indicating that participants experienced more intense emotions toward their hated targets than their disliked targets. A main effect by target,  $F(1, 407) = 4.18$ ,  $p = .041$ ,  $\omega_p^2 < .01$ , indicated that participants experienced more intense emotions toward their interpersonal targets compared with their intergroup targets. Thus, these findings support the assumption that hate is judged as more intense than dislike, and that interpersonal targets evoke more intense emotions. Full mixed effects and estimated marginal means are summarized in Tables 1 and 2.

#### Duration

Results revealed that participants judged hate as more enduring than dislike,  $F(1, 401) = 17.90$ ,  $p < .001$ ,  $\omega_p^2 = .02$ , giving support to the proposition that hate is more enduring compared with dislike. However, no significant differences between the interpersonal and intergroup targets emerged.

<sup>5</sup> However, we use multilevel modeling for analyzing the data. Given that there are not clear guidelines for calculating the power for multilevel models due to the partition of the variance (Rights & Sterba, 2018), we estimated the sample on the basis of the equivalent general linear model test.

<sup>6</sup> Results do not change when the outliers are included in the analyses.

**Table 1***Full Mixed-Effects Models by Target (Interpersonal/Intergroup) and Emotion (Hate/Dislike)*

Dimension	Random effect (Subject)				Fixed effect		
	$\tau_{00}$	ICC	Mar. $R^2$ /Con. $R^2$		$F$	$df$	$p$
Intensity	0.21	0.26	0.15 / 0.37	Target	4.18	1,407	.041
	—	—	—	Emotion	122.35	1,757	<.001
Duration	0.39	0.46	0.02 / 0.48	Target	0.75	1,394	.387
	—	—	—	Emotion	17.90	1,723	<.001
Personal threats	0.40	0.37	0.07 / 0.41	Target	3.91	1,404	.049
	—	—	—	Emotion	59.00	1,749	<.001
Social threats	0.39	0.32	0.23 / 0.48	Target	274.32	1,401	<.001
	—	—	—	Emotion	44.14	1,755	<.001
Withdraw behaviors	0.59	0.36	0.05 / 0.39	Target	37.53	1,402	<.001
	—	—	—	Emotion	24.36	1,751	<.001
Attack behaviors	0.82	0.35	0.06/0.39	Target	0.39	1,403	.535
	—	—	—	Emotion	51.48	1,752	<.001

Note.  $\tau_{00}$  = random intercept variance; ICC = intraclass correlation coefficient; Marginal  $R^2$  = variance explained by fixed factors; Conditional  $R^2$  = variance explained by both fixed and random factors. Each model was built including the interaction term between emotion and target, but no interactions were found for any dimension.

### Threat Perceptions

Results showed that as compared with disliked targets, participants perceive their hated targets as more threatening to themselves,  $F(1, 749) = 59.00$ ,  $p < .001$ ,  $\omega_p^2 = .07$ , and their groups,  $F(1, 755) = 44.14$ ,  $p < .001$ ,  $\omega_p^2 = .05$ . Results also revealed that participants perceived their intergroup targets as more threatening than their interpersonal targets both for themselves,  $F(1, 404) = 3.91$ ,  $p = .05$ ,  $\omega_p^2 < .01$ , and their groups,  $F(1, 401) = 274.32$ ,  $p < .001$ ,  $\omega_p^2 = .40$ . These results support the proposition that people perceive hated targets as more threatening than disliked targets both for themselves and their societies, especially intergroup targets.

### Action Tendencies

Results indicated that hate significantly predicts less self-reported withdraw-oriented behaviors than feelings of dislike,  $F(1, 751) = 24.36$ ,  $p < .001$ ,  $\omega_p^2 = .03$ , and more withdraw-oriented behaviors toward individuals than groups,  $F(1, 402) = 37.54$ ,  $p < .001$ ,  $\omega_p^2 = .08$ . Consistently, results indicate that hate significantly predicts more attack-oriented behaviors than dislike,  $F(1, 752) = 51.48$ ,  $p < .001$ ,  $\omega_p^2 = .06$ , and no differences by target were found. Thus, hate promotes significantly decreased withdraw-oriented and increased attack-oriented behaviors as compared with dislike.

**Table 2***Estimated Marginal Means of Emotion Dimensions by Emotion and Target*

Dimension	Emotion		Target	
	Hate	Dislike	Interpersonal	Intergroup
Intensity	4.13 (.04)	3.38 (.05)	3.82 (.04)	3.69 (.04)
Duration	4.68 (.04)	4.40 (.05)	4.52 (.05)	4.56 (.05)
Personal threats	3.20 (.05)	2.61 (.06)	2.84 (.05)	2.96 (.05)
Social threats	3.41 (.05)	2.87 (.07)	2.56 (.06)	3.72 (.06)
Withdraw behaviors	1.53 (.06)	2.00 (.08)	2.01 (.07)	1.53 (.07)
Attack behaviors	2.01 (.08)	1.20 (.09)	1.58 (.08)	1.64 (.08)

Note. SEs are in parentheses.

### Study 1: Hate Versus Dislike

The Pilot Study was exploratory in nature and used a design in which participants self-assigned to either the hate or dislike group by labeling their emotions. In Study 1 we sought to replicate and extend the pilot findings by conducting a confirmatory test of the differences between hate and dislike within the interpersonal and intergroup target conditions using a full within-subjects experimental design. Thus, we implemented four conditions manipulating the kind of emotion (i.e., hate vs. dislike) and the target (i.e., interpersonal and intergroup), and asked participants to provide four separate targets, one for each condition. Based on previous theorizing, and the preliminary findings, we tested the following predictions: (a) participants will experience hate as more intense than dislike; (b) participants will experience hate as more enduring than dislike; (c) participants will perceive hated targets as more personally and socially threatening than disliked targets; and (d) participants will display more attack-oriented than withdraw-oriented behaviors toward hated targets compared with disliked targets. Regarding differences by target we predicted that: (a) participants will experience more intense emotions toward interpersonal targets compared with intergroup targets; (b) participants will perceive intergroup targets as more socially threatening than interpersonal targets; and (c) participants will display more withdraw-oriented and attack-oriented behaviors toward interpersonal targets than intergroup targets.

### Method

#### Participants

A power analysis setting  $\alpha = .05$ , and power = .95, yielded a required sample of  $N = 219$  to detect small effect sizes ( $f = .10$ ).<sup>7</sup> We recruited an initial random sample of  $N = 257$  adults from the United States through Amazon MTurk. As preregistered, we excluded participants who provided unintelligible (e.g., random

<sup>7</sup> For the same reasons described in the Pilot Study we used the criteria for the equivalent GLM, namely a repeated measures ANOVA, for estimate the sample size using G\*power 3.1 (Faul et al., 2007).

characters) or irrelevant answers (e.g., “very interesting”)  $N = 31$ , and also participants who reported less than three targets  $N = 3$ , leaving a final sample of  $N = 223$ , 56% males, 43% females, age ranging between 21 and 73 years ( $M = 37.03$   $SD = 11.53$ ).

### Instruments and Procedure

Participants first read the instructions, agreed with the informed consent, and then proceeded with the questionnaire. The questionnaire was designed using Qualtrics and included four within-subjects conditions: (a) interpersonal dislike, (b) interpersonal hate, (c) intergroup dislike, and (d) intergroup hate. Respectively, participants were first asked to report an individual they dislike, an individual they hate, a group they dislike and a group they hate. We asked participants to fill their answers in separate boxes and keep in mind their targets for answering the follow up questions about each one.

Then, the instruction for each of the four conditions was as follows: “Please recall the [person/group] you mentioned at the beginning that you [dislike or disliked/hate or hated] and in a short paragraph describe this [person (it is not necessary to include personal details)/group] and explain how you came to [dislike (him/her/them)/hate (him/her/them)]. Feel free to include all the thoughts that come to your mind.” The order of presentation of the four conditions was randomized. Measures of intensity, duration, personal and social threat perceptions, and attack and withdraw action tendencies, were exactly the same as in the pilot, and were administered for each target in each condition. Good internal consistency scores were obtained for the personal threats subscales (dislike:  $\alpha_{\text{indiv}} = .88$ ,  $\alpha_{\text{group}} = .87$ ; Hate:  $\alpha_{\text{indiv}} = .85$ ,  $\alpha_{\text{group}} = .88$ ) and the social threats subscales (dislike:  $\alpha_{\text{indiv}} = .93$ ,  $\alpha_{\text{group}} = .93$ ; Hate:  $\alpha_{\text{indiv}} = .92$ ,  $\alpha_{\text{group}} = .88$ ). At the end of the questionnaire participants completed a sociodemographic form and application control questions, and were then debriefed. The survey took 12.28 minutes on average and participants were paid \$1.50 for their participation.

### Design and Analytical Strategy

We employed a full within-subjects design using emotion (hate vs. dislike) and target (individual vs. group) as within-subjects factors, comprising a total of four conditions.<sup>8</sup> We fitted six separate MLMs, one for each dependent variable, entering subject as the random factor with random intercepts. Main analyses were performed using the *lmer* package for R (Kuznetsova et al., 2017). As preregistered, multivariate outliers were screened using Mahalanobis distances. Two outliers with values greater than the  $\chi^2$  cut-off for  $p = .001$ , with  $df = 10$ , were removed from the analyses.

## Results and Discussion

### Intensity

Results revealed a main effect of condition on intensity,  $F(3, 648) = 73.61$ ,  $p < .001$ ,  $\omega_p^2 = .25$ . The follow-up pairwise contrasts indicated that participants experienced more intense emotions toward individuals they hate compared with individuals they dislike,  $M_{\text{diff}} = -.83$ ,  $SE_{\text{diff}} = .07$ ,  $t = -11.69$ ,  $p < .001$ , 95% CI  $[-1.01, -.65]$ . Likewise, participants also reported more intense emotions toward the groups they hate compared with the groups they dislike,  $M_{\text{diff}} = -.64$ ,  $SE_{\text{diff}} = .07$ ,  $t = -6.4$ ,  $p < .001$ , 95% CI  $[-.82,$

$-.46]$ . Regarding target, results revealed that participants experience hate more intensely toward their interpersonal target compared with their intergroup target,  $M_{\text{diff}} = .19$ ,  $SE_{\text{diff}} = .07$ ,  $t = 2.64$ ,  $p = .04$ , 95% CI  $[.004, .37]$ . No differences in intensity were found between dislike toward individuals compared with groups. These findings support the prediction that people experience hate as more intense than dislike, and that they experience interpersonal hate as more intense than intergroup hate. Full mixed effects, estimated marginal means and contrasts are summarized in Tables 3 and 4. Results across studies are displayed in Figure 1.

### Duration

Results yielded a main effect of condition on duration,  $F(3, 644) = 12.63$ ,  $p < .001$ ,  $\omega_p^2 = .05$ . Pairwise contrasts indicated that participants experience hate toward their interpersonal targets for longer periods of time compared with dislike,  $M_{\text{diff}} = -.19$ ,  $SE_{\text{diff}} = .05$ ,  $t = -3.34$ ,  $p < .001$ , 95% CI  $[-.33, -.04]$ . No differences in duration were found between hate and dislike toward the intergroup target. Regarding the differences by target, results revealed that participants experience dislike toward their intergroup target for longer periods of time compared with their interpersonal target,  $M_{\text{diff}} = -.29$ ,  $SE_{\text{diff}} = .05$ ,  $t = -5.09$ ,  $p < .001$ , 95% CI  $[-.33, -.04]$ . No differences in hate duration were found between the individual and the intergroup targets. In other words, people experience hate for longer periods of time than dislike, but only toward individual targets, and they disliked groups for longer periods than individuals.

### Personal Threats

We found a main effect of condition on personal threat perceptions,  $F(3, 646) = 22.39$ ,  $p < .001$ ,  $\omega_p^2 = .09$ . According to the post hoc contrasts, results indicated that participants feel more personally threatened by the individuals they hate compared with the individuals they dislike,  $M_{\text{diff}} = -.49$ ,  $SE_{\text{diff}} = .07$ ,  $t = -6.33$ ,  $p < .001$ , 95% CI  $[-.68, -.29]$ . Similarly, results revealed that they feel more personally threatened by the groups they hate compared with the groups they dislike,  $M_{\text{diff}} = -.26$ ,  $SE_{\text{diff}} = .07$ ,  $t = -3.46$ ,  $p < .001$ , 95% CI  $[-.46, -.07]$ . Regarding differences by target, results indicated that participants feel more personally threatened by the groups they dislike compared with the individuals they dislike,  $M_{\text{diff}} = .32$ ,  $SE_{\text{diff}} = .07$ ,  $t = -4.15$ ,  $p < .001$ , 95% CI  $[-.51, -.12]$ . No differences in personal threat perceptions were found between interpersonal and intergroup hate targets. These findings corroborate the hypothesis that people perceive hated targets as more threatening for themselves than disliked targets and suggest that disliked groups are also perceived as personally threatening.

### Social Threats

Results revealed a main effect of condition on social threat perceptions,  $F(3, 647) = 66.99$ ,  $p < .001$ ,  $\omega_p^2 = .23$ . Post hoc contrasts indicated that participants felt more socially threatened by the individuals they hate compared with the individuals they dislike,

<sup>8</sup> We report the results of the analyses using an alternative 2 (emotion)  $\times$  2 (target) design including their interaction term in the supplementary analyses, both for Study 1 (Table S8 in the online supplemental materials), and Studies 2a–2c (Table S10 in the online supplemental materials). Results are in line with the ones reported here.



**Table 3**  
*Full Mixed-Effects Models of Differences Between Hate and Dislike*

Dimension	Random effect (Subject)			Fixed effect		
	$\tau_{00}$	ICC	Mar. $R^2$ /Con. $R^2$	$df$	$F$	$p$
Intensity	0.30	0.36	0.14 / 0.45	3,648	73.60	<.001
Duration	0.27	0.44	0.02/0.46	3,644	12.36	<.001
Personal threats	0.70	0.52	0.04/0.54	3,646	22.39	<.001
Social threats	0.65	0.42	0.12/0.50	3,647	66.99	<.001
Withdraw behaviors	0.70	0.44	0.02/0.45	3,648	10.54	<.001
Attack behaviors	0.74	0.39	0.04/0.42	3,648	21.83	<.001

*Note.*  $\tau_{00}$  = random intercept variance; ICC = intraclass correlation coefficient; Marginal  $R^2$  = variance explained by fixed factors; Conditional  $R^2$  = variance explained by both fixed and random factors.

$M_{diff} = -.63$ ,  $SE_{diff} = .09$ ,  $t = -7.00$ ,  $p < .001$ , 95% CI  $[-.87, -.40]$ , and also more socially threatened by the group they hate compared with the group they dislike,  $M_{diff} = -.43$ ,  $SE_{diff} = .09$ ,  $t = -4.68$ ,  $p < .001$ , 95% CI  $[-.66, -.19]$ . In terms of target differences, results indicated that participants feel more socially threatened by the group they dislike compared with the individual they dislike,  $M_{diff} = -.83$ ,  $SE_{diff} = .09$ ,  $t = -9.21$ ,  $p < .001$ , 95% CI  $[-1.06, -.60]$ , as well as by the group they hate compared with the individual they hate,  $M_{diff} = -.62$ ,  $SE_{diff} = .09$ ,  $t = -6.84$ ,  $p < .001$ , 95% CI  $[-.86, -.39]$ . These results support the hypotheses that people perceive hated targets as more threatening for their society than disliked targets, and that they perceive intergroup targets as more socially threatening than interpersonal targets.

### Withdraw-Oriented Behaviors

We found a main effect of condition on withdraw-oriented behaviors,  $F(3, 648) = 10.54$ ,  $p < .001$ ,  $\omega_p^2 = .04$ . Post hoc contrasts revealed that participants report more withdraw-oriented behaviors toward the individuals they dislike compared with the individuals they hate,  $M_{diff} = .37$ ,  $SE_{diff} = .09$ ,  $t = 4.07$ ,  $p < .001$ , 95% CI  $[.14, .60]$ . No differences in withdraw behaviors between hate and dislike were found for the intergroup target. Regarding differences by target, results indicated that participants report more withdraw-oriented behaviors toward the individual they dislike compared with the group they dislike,  $M_{diff} = .38$ ,  $SE_{diff} = .09$ ,  $t = 4.10$ ,  $p < .001$ , 95% CI  $[.14, .60]$ . No differences in withdraw behaviors were found between the hated individual and the hated group. Thus, people tend to particularly withdraw from the individuals they dislike, more so than the groups they dislike or the individuals they hate.

### Attack-Oriented Behaviors

Finally, we found a main effect of condition on attack-oriented behaviors,  $F(3, 648) = 21.83$ ,  $p < .001$ ,  $\omega_p^2 = .09$ . Post hoc contrast indicated that participants reported more attack-oriented behaviors toward the individuals they hate ( $M = 1.60$ ,  $SE = .09$ ) compared with the individuals they dislike,  $M_{diff} = -.67$ ,  $SE_{diff} = .10$ ,  $t = -6.50$ ,  $p < .001$ , 95% CI  $[-.94, -.41]$ . Similarly, individuals reported more attack-oriented behaviors toward the groups they hate compared with the groups they dislike,  $M_{diff} = -.45$ ,  $SE_{diff} = .10$ ,  $t = -4.40$ ,  $p < .001$ , 95% CI  $[-.72, -.19]$ . Neither hate nor dislike showed significant differences in attack-oriented behaviors by target. These findings support the hypothesis that compared with dislike, hate promotes more attack-oriented behaviors across interpersonal and intergroup targets.

## Study 2: Hate Versus Anger, Contempt, and Disgust

Study 1 provides support for the hypothesis that compared with dislike, hate is a significantly more intense and enduring emotion, and is associated with higher threat-perceptions and attack-oriented action tendencies. Study 2 was designed to extend these findings by examining distinctive features of hate relative to the specific three negative moral emotions: anger, contempt, and disgust (Hutcherson & Gross, 2011; Rozin et al., 1999). Is hate an extreme version of these emotions? Do these emotions differ from hate in degree or kind? What exactly are the dimensions on which they are similar or different? In Studies 2a, 2b, and 2c, we aim to address these questions by examining the differences between hate and anger, contempt and disgust.<sup>9</sup> Accordingly, on the basis of our theorizing and Study 1 findings, we propose that as a unique strong emotion hate also shows differences with anger (Study 2a), contempt (Study 2b), and disgust (Study 2c). Across studies, we expect that as compared with these emotions, hate will show higher intensity, duration, threat perceptions and attack-oriented action tendencies across interpersonal and intergroup targets. Additionally, to test hate differences also from a dimensional perspective, we include in Study 2 measures of emotional valence and arousal. In this regard, we expect higher arousal and negative valence of hate as compared with anger, contempt, and disgust.

## Method

### Instruments and Procedure

Studies 2a, 2b, and 2c, share the same instrument and procedure with the exception that in each study we asked about targets of the corresponding emotions we are comparing with hate (i.e., anger, contempt, and disgust). Participants first read the instructions, agreed with the informed consent, and then proceeded with the Qualtrics questionnaire. As in Study 1, across Studies 2a–2c participants were

<sup>9</sup> Anger, contempt, and disgust were also selected on the basis of their relevance for hate as suggested by the results of the Pilot Study (see Tables S4–S7 in the online supplemental materials). We conducted additional analyses with the aggregated samples of Studies 2a–2c. We tested the associations between interpersonal and intergroup hate feelings across all the dimensions (Figure S5 in the online supplemental materials). We examined how seven discrete negative emotions (selected after the EFA in the Pilot Study) are related to hate and tested the invariance of a measurement model of a latent hate construct with the discrete negative emotions as its indicators across targets (Figure S6 in the online supplemental materials). And we report the ratings of discrete hate, anger, contempt, and disgust across target conditions (Table S11 in the online supplemental materials).

**Table 4***Estimated Marginal Means of Dimensions by Condition (Hate Versus Dislike)*

Dimension	Disliked individual	Hated individual	Disliked group	Hated group
Intensity	3.56 (0.06) <sup>a</sup>	4.38 (0.06) <sup>b</sup>	3.56 (0.06) <sup>a</sup>	4.20 (0.06) <sup>c</sup>
Duration	4.45 (0.05) <sup>a</sup>	4.64 (0.05) <sup>b</sup>	4.74 (0.05) <sup>b</sup>	4.75 (0.05) <sup>b</sup>
Personal threats	2.60 (0.07) <sup>a</sup>	3.09 (0.07) <sup>b</sup>	2.92 (0.07) <sup>c</sup>	3.18 (0.07) <sup>b</sup>
Social threats	2.50 (0.08) <sup>a</sup>	3.14 (0.08) <sup>b</sup>	3.34 (0.08) <sup>c</sup>	3.76 (0.08) <sup>d</sup>
Withdraw behaviors	2.10 (0.08) <sup>a</sup>	1.73 (0.08) <sup>b</sup>	1.71 (0.08) <sup>b</sup>	1.63 (0.08) <sup>b</sup>
Attack behaviors	0.93 (0.09) <sup>a</sup>	1.60 (0.09) <sup>b</sup>	1.18 (0.09) <sup>a</sup>	1.63 (0.09) <sup>b</sup>

Note. SEs are in parentheses. Values with different superscripts in each row are significantly different at  $p < .05$ .

first asked to list four separate targets: (a) an individual that make them experience anger (Study 2a), contempt (Study 2b), and disgust (Study 2c); (b) an individual they hate; (c) a group that make them experience anger (Study 2a), contempt (Study 2b), and disgust (Study 2c); and (d) a group they hate. We encouraged participants to keep in mind their answers for answering the follow up questions for each target, which were presented in a counterbalanced order. The instructions and measures of intensity, duration, personal and social threat perceptions, and attack and withdraw action tendencies were the same as in Study 1 and were administered for each target in each condition. Additionally, in Studies 2a-2c, we measured emotional valence and arousal in each condition by means of a computer based adaptation of the Self-Assessment Manikin (SAM), valence and arousal subscales scored from 0 to 100 (Bradley & Lang, 1994), we measure valence with the item: “on a scale from very unpleasant (0) to very pleasant (100), how was or is for you to experience [emotion/hate] toward this [person/group]?, we measured arousal with the item: “on a scale from very calm (0) to very excited (100), how emotionally aroused do or did you feel when experiencing [emotion/hate] toward this [person/group]?”. Good internal consistency scores were obtained for the personal social threats subscales across studies (see Table S9 in the online supplementary materials). At the end of the questionnaire participants completed a sociodemographic form, application control questions, and were debriefed. The survey took 18.7 minutes on average, and participants were paid \$1.20 for their participation.

### Design and Analytical Strategy

For Studies 2a-2c we used a full within-subjects design using emotion ([anger/contempt/dislike]/hate) and target (interpersonal/intergroup) as within-subjects factors, comprising a total of four conditions. We fitted eight separate MLMs, one for each dependent variable, entering subject as the random factor with random intercepts. The strategy for analyzing the data and reporting the results was the same as in Study 1.

## Results and Discussion

In the following sections, we report the results and discuss Studies 2a to 2c. Under the method section, we describe the sample for each study.

### Study 2a: Anger Versus Hate

#### Method

Using the same strategy of the previous studies, a power analysis setting  $\alpha = .05$ , and power = .80, yielded a required sample of

$N = 138$  to detect small effect sizes ( $f = .10$ ) in Studies 2a to 2c. For Study 2a, we recruited an initial sample of  $N = 254$  adults from the United States through Amazon MTurk. We excluded participants who provided unintelligible or irrelevant answers (e.g., random characters, “nice,” copy pasted unrelated text), and who reported the same anger and hate target across conditions ( $N = 86$ ), leaving a final sample of  $N = 168$ , 44.05% males, 55.36% females, .6% other gender, age ranging between 20 and 74 years ( $M = 39.45$ ,  $SD = 11.83$ ). We coded as missing the scores of participants who did not report either the hate or the anger target in only one target condition (e.g., missing hate or anger target only within the interpersonal but not within the intergroup condition), or who reported the same target in only one target condition (e.g., repeated target for hate and anger only within the interpersonal but not within the intergroup condition). As preregistered, multivariate outliers were screened using Mahalanobis distances. 14 outliers with values greater than the  $\chi^2$  cutoff for  $p = .001$ , with  $df = 16$ , were removed from the analyses.

## Results

### Intensity

Full mixed effects are summarized in Table 5. Results revealed a main effect of condition on intensity,  $F(3, 439) = 12.02$ ,  $p < .001$ ,  $\omega_p^2 = .07$ . The follow-up pairwise contrasts indicated that participants experienced more intense emotions toward the individuals that they hate ( $M = 4.15$ ,  $SE = .07$ ), compared with the individuals that make them angry ( $M = 3.76$ ,  $SE = .07$ ),  $M_{diff} = -.39$ ,  $SE_{diff} = .08$ ,  $t = -4.71$ ,  $p < .001$ , 95% CI  $[-.60, -.18]$ . Likewise, participants also reported more intense emotions toward the groups they hate ( $M = 4.20$ ,  $SE = .07$ ), compared with the groups that make them angry ( $M = 3.91$ ,  $SE = .07$ ),  $M_{diff} = -.28$ ,  $SE_{diff} = .08$ ,  $t = -3.34$ ,  $p < .01$ , 95% CI  $[-.50, -.06]$ . No significant differences in intensity by target were found within anger ( $M_{ind} = 3.76$ ,  $SE_{ind} = .07$ ;  $M_{grp} = 3.91$ ,  $SE_{grp} = .07$ ) or hate ( $M_{ind} = 4.15$ ,  $SE_{ind} = .07$ ;  $M_{grp} = 4.20$ ,  $SE_{grp} = .07$ ).

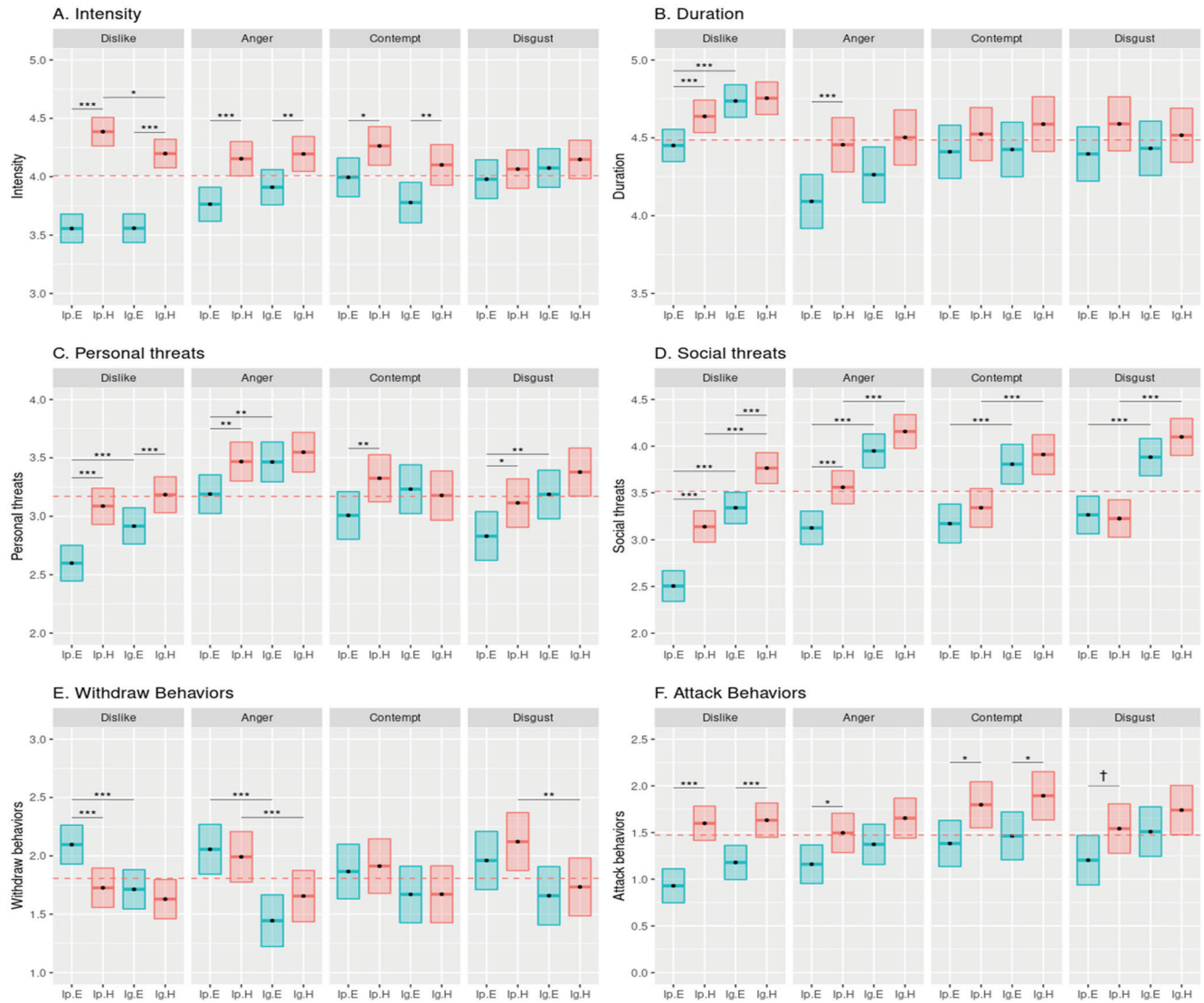
### Valence and Arousal

No significant differences in valence by emotion or target were found between anger ( $M_{ind} = 28.39$ ,  $SE_{ind} = 2.17$ ;  $M_{grp} = 29.05$ ,  $SE_{grp} = 2.04$ ) and hate ( $M_{ind} = 24.71$ ,  $SE_{ind} = 2.19$ ;  $M_{grp} = 24.65$ ,  $SE_{grp} = 2.22$ ). This suggests that participants experience hate and anger as equally negative across targets. Results revealed a main effect of condition on arousal,  $F(3, 433) = 9.33$ ,  $p < .001$ ,  $\omega_p^2 = .05$ . The pairwise contrasts indicated that participants feel more



**Figure 1**

*Estimated Marginal Means and Differences in Intensity (A), Duration (B), Threat Perceptions (C, D), and Action Tendencies (E, F), Between Hate and the Emotions Across Studies 1 and 2*



*Note.* Results are split by emotion. Condition is on the x axis (Ip.E = interpersonal emotion; Ip.H = interpersonal Hate; Ig.E = intergroup emotion; Ig.H = intergroup hate). Boxes represent 95% CI, and black dots represent the estimated marginal mean; Red (dark gray) boxes represent hate, blue (light gray) boxes represent the corresponding emotion in each facet. Dashed lines represent the base mean. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ . †Marginally significant ( $p = .07$ ). See the online article for the color version of this figure.

emotionally aroused toward the individuals they hate ( $M = 69.78$ ,  $SE = 2.21$ ), compared with the individuals toward they feel anger ( $M = 62.96$ ,  $SE = 2.19$ ),  $M_{diff} = -6.82$ ,  $SE_{diff} = 2.03$ ,  $t = -3.55$ ,  $p < .01$ , 95% CI  $[-12.07, -1.58]$ . Likewise, participants feel more emotionally aroused toward the groups they hate ( $M = 70.19$ ,  $SE = 2.24$ ), compared with the groups that make them angry ( $M = 61.60$ ,  $SE = 2.25$ ),  $M_{diff} = -8.59$ ,  $SE_{diff} = 2.10$ ,  $t = -4.08$ ,  $p < .001$ , 95% CI  $[-14.01, -3.17]$ . No significant differences in arousal by target were found within anger ( $M_{ind} = 62.96$ ,  $SE_{ind} = 2.19$ ;  $M_{grp} = 61.60$ ,  $SE_{grp} = 2.25$ ), or hate ( $M_{ind} = 69.78$ ,  $SE_{ind} = 2.21$ ;  $M_{grp} = 70.19$ ,  $SE_{grp} = 2.24$ ; see Figure S4 in the online supplementary materials).

### Duration

We found a main effect of condition on duration,  $F(3, 440) = 8.26$ ,  $p < .001$ ,  $\omega_p^2 = .05$ . Pairwise contrasts indicated that participants experience hate toward their interpersonal targets for longer periods of time ( $M = 4.46$ ,  $SE = .09$ ), compared with anger ( $M = 4.09$ ,  $SE = .09$ ),  $M_{diff} = -.36$ ,  $SE_{diff} = .09$ ,  $t = -3.95$ ,  $p < .001$ , 95% CI  $[-.60, -.12]$ . No significant differences in duration between hate ( $M = 4.50$ ,  $SE = .09$ ) and anger ( $M = 4.26$ ,  $SE = .09$ ) toward intergroup targets were found. Finally, no significant differences by target within anger ( $M_{ind} = 4.09$ ,  $SE_{ind} = .09$ ;  $M_{grp} = 4.26$ ,  $SE_{grp} = .09$ ), or hate ( $M_{ind} = 4.46$ ,  $SE_{ind} = .09$ ;  $M_{grp} = 4.50$ ,  $SE_{grp} = .09$ ) were found.

**Table 5**  
*Full Mixed-Effects Models of Differences Between Hate and Anger*

Dimension	Random effect (Subject)			Fixed effect		
	$\tau_{00}$	ICC	Mar. $R^2$ /Con. $R^2$	$df$	$F$	$p$
Intensity	0.35	0.40	0.03 / 0.42	3,439	12.01	<.001
Valence	425.1	0.56	0.005/0.56	3,439	2.42	.07
Arousal	459.0	0.59	0.02/0.60	3,433	9.33	<.001
Duration	0.59	0.47	0.02/0.49	3,440	8.26	<.001
Personal threats	0.55	0.49	0.02/0.50	3,439	6.35	<.001
Social threats	0.54	0.42	0.11/0.49	3,442	40.61	<.001
Withdraw behaviors	0.88	0.47	0.03/0.48	3,437	11.53	<.001
Attack behaviors	0.56	0.32	0.02/0.33	3,448	5.38	<.001

*Note.*  $\tau_{00}$  = random intercept variance; ICC = intraclass correlation coefficient; Marginal  $R^2$  = variance explained by fixed factors; Conditional  $R^2$  = variance explained by both fixed and random factors.

### Personal Threats

We found a main effect of condition on personal threat perceptions,  $F(3, 439) = 6.35, p < .001, \omega_p^2 = .03$ . According to the pairwise contrasts, results indicated that participants feel more personally threatened by the individuals they hate ( $M = 3.47, SE = .09$ ), compared with the individuals toward they feel anger ( $M = 3.19, SE = .08$ ),  $M_{diff} = -.28, SE_{diff} = .09, t = -3.20, p < .01, 95\% CI [-.50, -.05]$ . No significant differences in personal threat perceptions between hate ( $M = 3.55, SE = .09$ ) and anger ( $M = 3.46, SE = .09$ ) toward intergroup targets were found. Results also indicated that participants feel more personally threatened by their intergroup anger targets ( $M = 3.46, SE = .09$ ), compared with their interpersonal anger targets ( $M = 3.19, SE = .08$ ),  $M_{diff} = -.27, SE_{diff} = .09, t = -3.07, p < .01, 95\% CI [-.50, -.04]$ . No significant differences in personal threats perceptions toward hated individuals ( $M = 3.47, SE = .09$ ) and groups ( $M = 3.55, SE = .09$ ) were found.

### Social Threats

Results revealed a main effect of condition on social threat perceptions,  $F(3, 442) = 40.61, p < .001, \omega_p^2 = .21$ . Post hoc contrasts indicated that participants felt more socially threatened by the individuals they hate ( $M = 3.56, SE = .09$ ), compared with the individuals toward they experience anger ( $M = 3.13, SE = .09$ ),  $M_{diff} = -.43, SE_{diff} = .1, t = -4.40, p < .001, 95\% CI [-.68, -.17]$ . At the intergroup level, no significant differences in social threat perceptions were found between hate ( $M = 4.16, SE = .09$ ) and anger ( $M = 3.95, SE = .09$ ). Regarding target differences, results indicated that participants feel more socially threatened by the groups toward they feel anger ( $M = 3.95, SE = .09$ ), compared with the individuals toward they feel anger ( $M = 3.13, SE = .09$ ),  $M_{diff} = -.82, SE_{diff} = .10, t = -8.15, p < .001, 95\% CI [-1.08, -.56]$ , as well as by the groups they hate ( $M = 4.16, SE = .09$ ), compared with the individuals they hate ( $M = 3.56, SE = .09$ ),  $M_{diff} = -.60, SE_{diff} = .10, t = -5.91, p < .001, 95\% CI [-.86, -.34]$ .

### Withdraw-Oriented Behaviors

We found a main effect of condition on withdraw-oriented behaviors,  $F(3, 437) = 11.53, p < .001, \omega_p^2 = .07$ . Post hoc contrasts revealed no significant differences in withdraw-oriented

behaviors between anger and hate across interpersonal ( $M_{anger} = 2.06, SE_{anger} = .11; M_{hate} = 1.99, SE_{hate} = .11$ ) and intergroup ( $M_{anger} = 1.45, SE_{anger} = .11; M_{hate} = 1.66, SE_{hate} = .11$ ) targets. However, participants reported more withdraw behaviors toward the individuals that make them angry ( $M = 2.06, SE = .11$ ), compared with the groups that make them angry ( $M = 1.45, SE = .11$ ),  $M_{diff} = .61, SE_{diff} = .11, t = 5.17, p < .001, [95\% CI, .30, .92]$ , as well as toward the individuals they hate ( $M = 1.99, SE = .11$ ), compared with the groups they hate ( $M = 1.66, SE = .11$ ),  $M_{diff} = .34, SE_{diff} = .11, t = 2.83, p = .02, 95\% CI [.03, .64]$ .

### Attack-Oriented Behaviors

Finally, we found a main effect of condition on attack-oriented behaviors,  $F(3, 448) = 5.39, p < .001, \omega_p^2 = .03$ . Post hoc contrasts indicated that participants reported more attack-oriented behaviors toward the individuals they hate ( $M = 1.50, SE = .11$ ), compared with the individuals that make them feel anger ( $M = 1.16, SE = .11$ ),  $M_{diff} = -.34, SE_{diff} = .12, t = -2.67, p = .04, 95\% CI [-.67, -.01]$ . No significant differences in attack-oriented behaviors were found between hate ( $M = 1.65, SE = .11$ ) and anger ( $M = 1.37, SE = .11$ ) at the group level. Moreover, no significant differences by target in attack-oriented behaviors were found within anger ( $M_{ind} = 1.16, SE_{ind} = .11; M_{grp} = 1.37, SE_{grp} = .11$ ) or hate ( $M_{ind} = 1.50, SE_{ind} = .11; M_{grp} = 1.65, SE_{grp} = .11$ ).

### Discussion

Study 2a supported the proposed hypotheses. As predicted, participants experienced hate as more intense and arousing than anger across targets. Hate was judged as more durable than anger, as involving more personal and social threat perceptions, and to facilitate attack-oriented behaviors more strongly, although these latter differences are significant only at the interpersonal level. Participants' withdraw-oriented behaviors toward their hate and anger targets are not significantly different, but they avoid more their interpersonal targets than their intergroup targets in general. Finally, participants attribute similar negative valence levels to hate and anger, feel more personally threatened by the groups than the individuals that make them angry, and more socially threatened by their intergroup targets than their interpersonal targets.

## Study 2b: Contempt Versus Hate

### Method

For Study 2b we recruited an initial sample of  $N = 237$  adults from the United States through Amazon MTurk. Using the same exclusion criteria of Study 2a, we excluded  $N = 99$  participants, leaving a final sample of  $N = 138$ , 52.9% males, 46.8% females, .7% other gender, age ranging between 19 and 75 years ( $M = 39.34$ ,  $SD = 11.45$ ). Scores of participants who reported not having a hate or contempt target or who reported the same target in only one of the two target conditions were coded as missing. As preregistered, 16 outliers with values greater than the  $\chi^2$  cutoff for  $p = .001$ , with  $df = 16$ , were removed from the analyses.

### Results

#### Intensity

Full mixed effects are summarized in Table 6. Results revealed a main effect of condition on intensity,  $F(3, 357) = 8.041$ ,  $p < .001$ ,  $\omega_p^2 = .06$ . Pairwise contrasts indicated that participants experienced more intense emotions toward the individuals they hate ( $M = 4.26$ ,  $SE = .08$ ), compared with the individuals toward whom they feel contempt ( $M = 3.99$ ,  $SE = .08$ ),  $M_{diff} = -.27$ ,  $SE_{diff} = .10$ ,  $t = -2.73$ ,  $p = .03$ , 95% CI  $[-.52, -.01]$ . Likewise, participants also reported more intense emotions toward the groups they hate ( $M = 4.10$ ,  $SE = .09$ ), compared with the groups toward whom they feel contempt ( $M = 3.78$ ,  $SE = .09$ ),  $M_{diff} = -.32$ ,  $SE_{diff} = .08$ ,  $t = -3.11$ ,  $p < .01$ , 95% CI  $[-.59, -.05]$ . No significant differences by target were found within contempt ( $M_{ind} = 3.99$ ,  $SE_{ind} = .08$ ;  $M_{grp} = 3.78$ ,  $SE_{grp} = .09$ ) or hate ( $M_{ind} = 4.26$ ,  $SE_{ind} = .08$ ;  $M_{grp} = 4.10$ ,  $SE_{grp} = .09$ ).

#### Valence and Arousal

In line with Study 2a, no significant differences in valence by emotion or target were found between contempt ( $M_{ind} = 30.68$ ,  $SE_{ind} = 2.63$ ;  $M_{grp} = 30.39$ ,  $SE_{grp} = 2.70$ ) and hate ( $M_{ind} = 28.42$ ,  $SE_{ind} = 2.62$ ;  $M_{grp} = 32.84$ ,  $SE_{grp} = 2.71$ ), suggesting that participants experience hate and contempt as equally negative across targets. Results revealed a main effect of condition on arousal,  $F(3, 358) = 9.99$ ,  $p < .001$ ,  $\omega_p^2 = .07$ . Pairwise contrasts indicated that

participants feel more emotionally aroused toward the individuals they hate ( $M = 71.0$ ,  $SE = 2.38$ ), compared with the individuals toward whom they feel contempt ( $M = 63.3$ ,  $SE = 2.39$ ),  $M_{diff} = -7.63$ ,  $SE_{diff} = 2.27$ ,  $t = -3.35$ ,  $p < .01$ , 95% CI  $[-13.50, -1.75]$ . Likewise, participants feel more emotionally aroused toward the groups they hate ( $M = 69.6$ ,  $SE = 2.46$ ), compared with the groups toward whom they feel contempt ( $M = 59.9$ ,  $SE = 2.45$ ),  $M_{diff} = -9.78$ ,  $SE_{diff} = 2.40$ ,  $t = -4.08$ ,  $p < .001$ , 95% CI  $[-15.97, -3.60]$ . No significant differences by target were found within contempt ( $M_{ind} = 63.34$ ,  $SE_{ind} = 2.39$ ;  $M_{grp} = 59.86$ ,  $SE_{grp} = 2.45$ ) or hate ( $M_{ind} = 70.97$ ,  $SE_{ind} = 2.38$ ;  $M_{grp} = 69.65$ ,  $SE_{grp} = 2.46$ ).

#### Duration

No significant differences in duration by emotion or target were found between contempt ( $M_{ind} = 4.41$ ,  $SE_{ind} = .09$ ;  $M_{grp} = 4.43$ ,  $SE_{grp} = .09$ ) and hate ( $M_{ind} = 4.52$ ,  $SE_{ind} = .09$ ;  $M_{grp} = 4.59$ ,  $SE_{grp} = .09$ ). These results suggest that contempt, both toward individuals and groups, is experienced during similar periods of time as hate.

#### Personal Threats

We found a main effect of condition on personal threat perceptions,  $F(3, 358) = 3.65$ ,  $p < .001$ ,  $\omega_p^2 = .02$ . According to the pairwise contrasts, results indicated that participants feel more personally threatened by the individuals they hate ( $M = 3.32$ ,  $SE = .10$ ), compared with the individuals toward whom they feel contempt ( $M = 3.01$ ,  $SE = .10$ ),  $M_{diff} = -.31$ ,  $SE_{diff} = .10$ ,  $t = -3.22$ ,  $p < .01$ , 95% CI  $[-.57, -.06]$ . Results revealed no significant differences in personal threats between contempt ( $M = 3.23$ ,  $SE = .11$ ) and hate ( $M = 3.18$ ,  $SE = .11$ ) toward intergroup targets, nor significant differences by target within contempt ( $M_{ind} = 3.01$ ,  $SE_{ind} = .10$ ;  $M_{grp} = 2.23$ ,  $SE_{grp} = .11$ ) or hate ( $M_{ind} = 3.32$ ,  $SE_{ind} = .10$ ;  $M_{grp} = 3.18$ ,  $SE_{grp} = .11$ ).

#### Social Threats

Results revealed a main effect of condition on social threat perceptions,  $F(3, 358) = 21.27$ ,  $p < .001$ ,  $\omega_p^2 = .14$ . No significant differences in social threat perceptions between contempt and hate were found across interpersonal ( $M_{contempt} = 3.17$ ,  $SE_{contempt} = .10$ ;  $M_{hate} = 3.34$ ,  $SE_{hate} = .10$ ) and intergroup targets ( $M_{contempt} = 3.81$ ,  $SE_{contempt} = .11$ ;  $M_{hate} = 3.91$ ,  $SE_{hate} = .11$ ). Regarding differences by target, results indicated that participants feel more

**Table 6**  
Full Mixed-Effects Models of Differences Between Hate and Contempt

Dimension	Random effect (Subject)			Fixed effect		
	$\tau_{00}$	ICC	Mar. $R^2$ /Con. $R^2$	$df$	$F$	$p$
Intensity	0.31	0.33	0.03/0.36	3,357	8.04	<.001
Valence	508.1	0.56	0.003/0.56	3,357	0.97	.40
Arousal	417.1	0.56	0.03/0.57	3,358	9.99	<.001
Duration	0.62	0.63	0.005/0.63	3,352	2.26	.08
Personal threats	0.77	0.56	0.01/0.56	3,358	3.65	.01
Social threats	0.73	0.51	0.06/0.54	3,358	21.27	<.001
Withdraw behaviors	0.87	0.47	0.007/0.47	3,357	1.95	.12
Attack behaviors	0.75	0.37	0.02/0.38	3,356	5.76	<.001

Note.  $\tau_{00}$  = random intercept variance; ICC = intraclass correlation coefficient; Marginal  $R^2$  = variance explained by fixed factors; Conditional  $R^2$  = variance explained by both fixed and random factors.



socially threatened by the groups toward whom they feel contempt ( $M = 3.81$ ,  $SE = .11$ ), compared with the individuals toward whom they feel contempt ( $M = 3.17$ ,  $SE = .10$ ),  $M_{diff} = -.63$ ,  $SE_{diff} = .10$ ,  $t = -5.85$ ,  $p < .001$ , 95% CI  $[-.91, -.35]$ , as well as by the groups they hate ( $M = 3.91$ ,  $SE = .11$ ), compared with the individuals they hate ( $M = 3.34$ ,  $SE = .10$ ),  $M_{diff} = -.57$ ,  $SE_{diff} = .10$ ,  $t = -5.23$ ,  $p < .001$ , 95% CI  $[-.85, -.29]$ .

### Withdraw-Oriented Behaviors

No significant differences in withdraw-oriented behaviors by emotion or target were found between contempt ( $M_{ind} = 1.87$ ,  $SE_{ind} = .12$ ;  $M_{grp} = 1.67$ ,  $SE_{grp} = .12$ ) and hate ( $M_{ind} = 1.91$ ,  $SE_{ind} = .12$ ;  $M_{grp} = 1.67$ ,  $SE_{grp} = .12$ ). These results suggest that participants do not differ significantly in the avoidance of their hate and contempt targets.

### Attack-Oriented Behaviors

Finally, we found a main effect of condition on attack-oriented behaviors,  $F(3, 356) = 5.76$ ,  $p < .001$ ,  $\omega_p^2 = .04$ . Post hoc contrasts indicated that participants reported more attack behaviors toward the individuals they hate ( $M = 1.80$ ,  $SE = .13$ ), compared with the individuals toward whom they feel contempt ( $M = 1.38$ ,  $SE = .13$ ),  $M_{diff} = -.41$ ,  $SE_{diff} = .14$ ,  $t = -2.91$ ,  $p = .02$ , 95% CI  $[-.78, -.04]$ , as well as toward the groups that they hate ( $M = 1.89$ ,  $SE = .13$ ), compared with the groups toward whom they feel contempt ( $M = 1.46$ ,  $SE = .13$ ),  $M_{diff} = -.43$ ,  $SE_{diff} = .15$ ,  $t = -2.86$ ,  $p = .02$ , 95% CI  $[-.81, -.04]$ . No significant differences in attack-oriented behaviors by target were found within contempt ( $M_{ind} = 1.38$ ,  $SE_{ind} = .13$ ;  $M_{grp} = 1.46$ ,  $SE_{grp} = .13$ ) or hate ( $M_{ind} = 1.80$ ,  $SE_{ind} = .13$ ;  $M_{grp} = 1.89$ ,  $SE_{grp} = .13$ ).

## Discussion

Participants report experiencing hate as more intense and arousing than contempt across targets. Hate also promotes more attack-oriented behaviors than contempt, and participants perceive their hate targets as more personally threatening than their contempt targets at the interpersonal level. However, results revealed that hate does not endure significantly longer than contempt, and participants do not avoid their hate targets significantly less than their contempt targets. Although intergroup targets are perceived as more socially threatening than interpersonal targets by participants in general, there are no differences

between the social threats that hate and contempt targets evoke. Participants also attribute similar negative valence levels to hate and contempt.

## Study 2c: Disgust Versus Hate

### Method

For Study 2c we recruited an initial sample of  $N = 261$  adults from the United States through Amazon MTurk. Using the same exclusion criteria of Studies 2a and 2b, we excluded  $N = 114$  participants, leaving a final sample of  $N = 147$ , 52.4% males, 47.6% females, age ranging between 21 and 73 years ( $M = 40$ ,  $SD = 12.06$ ). Scores of participants who reported not having a hate or disgust target or who reported the same target in only one of the two target conditions were coded as missing. As preregistered, 12 outliers with values greater than the  $\chi^2$  cutoff for  $p = .001$ , with  $df = 16$ , were removed from the analyses.

### Results

#### Intensity

Full mixed effects are summarized in Table 7. No significant differences by emotion or target were found between disgust ( $M_{ind} = 3.98$ ,  $SE_{ind} = .08$ ;  $M_{grp} = 4.07$ ,  $SE_{grp} = .08$ ) and hate ( $M_{ind} = 4.07$ ,  $SE_{ind} = .08$ ;  $M_{grp} = 4.15$ ,  $SE_{grp} = .08$ ). These results suggest that participants experience hate and disgust toward their targets with similar levels of intensity.

#### Valence and Arousal

In line with Study 2a and 2b, no significant differences in valence by emotion or target were found between disgust ( $M_{ind} = 25.38$ ,  $SE_{ind} = 2.40$ ;  $M_{grp} = 26.87$ ,  $SE_{grp} = 2.40$ ) and hate ( $M_{ind} = 23.24$ ,  $SE_{ind} = 2.39$ ;  $M_{grp} = 24.36$ ,  $SE_{grp} = 2.39$ ), suggesting that participants experience hate and disgust as equally negative across targets. Results revealed a main effect of condition on arousal,  $F(3, 362) = 4.80$ ,  $p < .01$ ,  $\omega_p^2 = .03$ . Pairwise contrasts indicated that participants feel more emotionally aroused toward the individuals they hate ( $M = 69.15$ ,  $SE = 2.53$ ), compared with the individuals toward whom they feel disgust ( $M = 62.24$ ,  $SE = 2.54$ ),  $M_{diff} = -6.91$ ,  $SE_{diff} = 2.25$ ,  $t = -3.07$ ,  $p < .01$ , 95% CI  $[-12.73, -1.10]$ . Results revealed no significant differences in emotional arousal

**Table 7**

*Full Mixed-Effects Models of Differences Between Hate and Disgust*

Dimension	Random effect (Subject)			Fixed effect		
	$\tau_{00}$	ICC	Mar. $R^2$ /Con. $R^2$	$df$	$F$	$p$
Intensity	0.34	0.37	0.004/0.37	3,377	1.01	.39
Valence	528.8	0.69	0.002/0.69	3,362	1.20	.31
Arousal	541.9	0.63	0.01/0.64	3,362	4.80	<.01
Duration	0.62	0.60	0.005/0.60	3,368	2.23	.09
Personal threats	0.78	0.54	0.03/0.55	3,366	9.18	<.001
Social threats	0.52	0.40	0.09/0.46	3,365	28.92	<.001
Withdraw behaviors	1.19	0.56	0.02/0.57	3,367	5.76	<.001
Attack behaviors	1.14	0.48	0.02/0.49	3,370	4.86	<.01

*Note.*  $\tau_{00}$  = random intercept variance; ICC = intraclass correlation coefficient; Marginal  $R^2$  = variance explained by fixed factors; Conditional  $R^2$  = variance explained by both fixed and random factors.

between disgust ( $M = 63.36$ ,  $SE = 2.54$ ) and hate ( $M = 68.41$ ,  $SE = 2.53$ ) toward intergroup targets, nor significant differences by target within disgust ( $M_{ind} = 62.24$ ,  $SE_{ind} = 2.54$ ;  $M_{grp} = 63.36$ ,  $SE_{grp} = 2.54$ ) or hate ( $M_{ind} = 69.15$ ,  $SE_{ind} = 2.53$ ;  $M_{grp} = 68.41$ ,  $SE_{grp} = 2.53$ ).

### Duration

In line with Study 2b, no significant differences in duration by emotion or target were found between disgust ( $M_{ind} = 4.40$ ,  $SE_{ind} = .09$ ;  $M_{grp} = 4.43$ ,  $SE_{grp} = .09$ ) and hate ( $M_{ind} = 4.59$ ,  $SE_{ind} = .09$ ;  $M_{grp} = 4.52$ ,  $SE_{grp} = .09$ ). These results suggest that participants experience disgust, both toward individuals and groups, for similar periods of time as they experience hate.

### Personal Threats

We found a main effect of condition on personal threat perceptions,  $F(3, 366) = 9.18$ ,  $p < .001$ ,  $\omega_p^2 = .06$ . According to the pairwise contrasts, results indicated that participants feel more personally threatened by the individuals they hate ( $M = 3.11$ ,  $SE = .11$ ), compared with the individuals toward whom they feel disgust ( $M = 2.83$ ,  $SE = .11$ ),  $M_{diff} = -.28$ ,  $SE_{diff} = .10$ ,  $t = -2.71$ ,  $p = .03$ , 95% CI  $[-.55, -.01]$ . No significant differences in personal threats between hate ( $M = 3.38$ ,  $SE = .10$ ) and disgust ( $M = 3.19$ ,  $SE = .11$ ) toward intergroup targets were found. Results also revealed that participants feel more personally threatened by the groups toward whom they feel disgust ( $M = 3.19$ ,  $SE = .11$ ), compared with the individuals toward whom they feel disgust ( $M = 2.83$ ,  $SE = .11$ ),  $M_{diff} = -.35$ ,  $SE_{diff} = .11$ ,  $t = -3.36$ ,  $p < .01$ , 95% CI  $[-.63, -.08]$ . Not significant differences by target within hate ( $M_{ind} = 3.11$ ,  $SE_{ind} = .10$ ;  $M_{grp} = 3.38$ ,  $SE_{grp} = .10$ ) were found.

### Social Threats

Results revealed a main effect of condition on social threat perceptions,  $F(3, 365) = 28.92$ ,  $p < .001$ ,  $\omega_p^2 = .18$ . No significant differences in social threat perceptions between disgust and hate were found across interpersonal ( $M_{disgust} = 3.26$ ,  $SE_{disgust} = .10$ ;  $M_{hate} = 3.23$ ,  $SE_{hate} = .10$ ) and intergroup ( $M_{disgust} = 3.88$ ,  $SE_{disgust} = .10$ ;  $M_{hate} = 4.10$ ,  $SE_{hate} = .10$ ) targets. Regarding differences by target, results indicated that participants feel more socially threatened by the groups toward whom they feel disgust ( $M = 3.88$ ,  $SE = .10$ ), compared with the individuals toward whom they feel disgust ( $M = 3.26$ ,  $SE = .10$ ),  $M_{diff} = -.62$ ,  $SE_{diff} = .12$ ,  $t = -5.38$ ,  $p < .001$ , 95% CI  $[-.91, -.32]$ , as well as by the groups they hate ( $M = 4.10$ ,  $SE = .10$ ), compared with the individuals they hate ( $M = 3.23$ ,  $SE = .10$ ),  $M_{diff} = -.87$ ,  $SE_{diff} = .11$ ,  $t = -7.64$ ,  $p < .001$ , 95% CI  $[-1.17, -.58]$ .

### Withdraw-Oriented Behaviors

We found a main effect of condition on withdraw-oriented behaviors,  $F(3, 367) = 5.76$ ,  $p < .001$ ,  $\omega_p^2 = .04$ . Pairwise contrasts revealed no differences between disgust and hate across interpersonal ( $M_{disgust} = 1.96$ ,  $SE_{disgust} = .13$ ;  $M_{hate} = 2.12$ ,  $SE_{hate} = .13$ ) and intergroup ( $M_{disgust} = 1.66$ ,  $SE_{disgust} = .13$ ;  $M_{hate} = 1.73$ ,  $SE_{hate} = .13$ ) targets. However, participants reported more withdraw behaviors toward the individuals they hate ( $M = 2.12$ ,  $SE = .13$ ), compared with the groups they hate ( $M = 1.73$ ,  $SE = .13$ ),  $M_{diff} = .39$ ,  $SE_{diff} = .12$ ,  $t = 3.15$ ,  $p < .01$ , 95% CI  $[.07, .71]$ . No significant

differences by target within disgust were found ( $M_{ind} = 1.96$ ,  $SE_{ind} = .13$ ;  $M_{grp} = 1.66$ ,  $SE_{grp} = .13$ ).

### Attack-Oriented Behaviors

A main effect of condition on attack-oriented behaviors was found,  $F(3, 370) = 4.86$ ,  $p < .01$ ,  $\omega_p^2 = .03$ . Post hoc contrasts indicated a marginal effect, suggesting that participants display slightly more attack behaviors toward their interpersonal hated targets ( $M = 1.54$ ,  $SE = .13$ ) than toward their interpersonal disgust targets ( $M = 1.20$ ,  $SE = .13$ ),  $M_{diff} = -.34$ ,  $SE_{diff} = .14$ ,  $t = -2.41$ ,  $p = .077$ , 95% CI  $[-.70, .02]$ . No significant differences in attack behaviors between hate ( $M = 1.74$ ,  $SE = .13$ ) and disgust ( $M = 1.51$ ,  $SE = .14$ ) toward intergroup targets were found. Finally, no significant differences in attack behaviors by target within disgust were found ( $M_{ind} = 1.20$ ,  $SE_{ind} = .14$ ;  $M_{grp} = 1.51$ ,  $SE_{grp} = .14$ ) or hate ( $M_{ind} = 1.54$ ,  $SE_{ind} = .13$ ;  $M_{grp} = 1.74$ ,  $SE_{grp} = .13$ ).

### Discussion

As compared with disgust, participants experience hate at the interpersonal level as a more arousing emotion that evokes significantly more personal threats, which is in line with our predictions. Moreover, intergroup disgust targets evoke more personal threats than interpersonal disgust targets, participants perceive more social threats toward their intergroup targets than their interpersonal targets across emotions, and hated individuals tend to be more avoided than hated groups. However, as compared with the other emotions under investigation here, disgust shares relatively the most commonalities with hate. Hate is not significantly different from disgust in terms of intensity, duration, personal threats at the intergroup level, social threats, and withdraw-oriented or attack-oriented behaviors.

### General Discussion

Considerable research has focused on various negative emotions in interpersonal and intergroup contexts, yet hardly any empirical research has focused exclusively on how hate differs from other negative emotions. For this purpose, in the present research we examine how people view self-generated incidents of interpersonal and intergroup hate as different from dislike, and three specific emotions: anger, contempt, and disgust. In line with our predictions, results at the interpersonal level revealed that participants feel consistently more emotionally aroused, personally threatened, and inclined toward attack-oriented action tendencies when experiencing hate as compared with disgust, contempt, anger, and dislike<sup>10</sup>; they experience hate as more intense than dislike, anger, and contempt; more enduring and associated to social threats than dislike and anger; and more associated with withdraw behaviors than dislike. At the intergroup level, results revealed that participants experience hate as more arousing than anger and contempt; more intense than dislike, anger, and contempt; more associated with personal and social threats than dislike; and feel more

<sup>10</sup> We did not compare arousal between hate and dislike. However, results from the Pilot and Study 1 that indicate significant differences in intensity between hate and dislike, and the consistent differences in arousal between hate and the other emotions across studies, point towards higher emotional arousal due to hate as compared with dislike.

inclined toward attack-oriented action tendencies than when they feel dislike and contempt. Against expectations, across targets we did not find significant differences in valence and withdraw-oriented behaviors between hate and anger, contempt and disgust; no differences in duration and social threat perceptions between hate and disgust and contempt; and no differences in intensity between hate and disgust. In terms of the bigger picture, we found novel (and somewhat tentative) evidence suggesting that hate is most distinct from dislike and anger, somewhat less distinct from contempt and least distinct from disgust (see Table 8).

A first potential explanation may be that like hate, both contempt and moral disgust are focused on targets' dispositions, leading to more stable and long lasting attributions than other short term emotions (Hutcherson & Gross, 2011). Contempt, for instance, has been conceptualized as dispositional contempt: A stable individual difference, correlating with narcissism, perfectionism and disagreeableness, which takes the form of a rather trait than state enduring emotion (Schriber et al., 2017). In the same line, disgust has also been conceptualized as a disgust sensitivity stable trait (Karinen et al., 2021). This association between prolonged emotions and their transformation in dispositional traits raises the question about the degree in which hate could also take a dispositional form. A second (and related) interpretation is that both hate and disgust are particularly triggered by immoral targets that pose threats and social costs to individuals and groups (Hutcherson & Gross, 2011; Tybur et al., 2009), which can result in similar levels of emotional intensity in response to moral violations. A third explanation derives from the general notion that hate could be regarded as a higher-order feeling that simultaneously comprises anger, contempt, and disgust. From this perspective, it should not be surprising that hate shares some features with the discrete emotions. There are some characteristics of hate suggesting that it could be conceptualized as a second order feeling rather than as a discrete emotion. Unlike discrete emotions, hate (a) is oriented to the longer-term; (b) does not have a unique universal facial expression; (c) is semantically and physiologically hard to distinguish from other emotions; and (d) has triggering situations that are not unique (Fischer & Giner-Sorolla, 2016). Also, feelings are based on global rather than immediate appraisals of individuals and groups, involve the simultaneous activation of multiple discrete emotions toward a target (Opatow & McClelland, 2007; Staub, 2005), and hardly dissipate completely (Roseman & Steele, 2018), as seems to be the case of hate. We explored this issue in the supplemental analyses, and uncovered some evidence that anger, contempt and disgust variances are substantially accounted

for by a hate latent construct across targets (see Figure S6), but this is definitely an interesting hypothesis to examine in future research.

In addition to the similarities, results also revealed pronounced differences between hate and the three discrete emotions, thereby providing some support for the distinctive features of hate. First, hate differed in a variety of ways from the general state of dislike. Specifically, it differed on all dimensions, with a few exceptions for duration and withdraw-oriented behaviors in the intergroup condition. These findings challenge the conceptualization of hate only as a form of extreme dislike, made both by laypeople (Aumer & Hatfield, 2007) and scientists (e.g., Allport, 1954; Darwin, 1872). Moreover, results revealed that at least compared with anger and dislike, the experience of hate is more enduring, supporting the view that people can "hold on to" and nourish intense hate feelings over prolonged periods of time (Halperin, 2008; Halperin et al., 2012; Staub, 2005; Sternberg & Sternberg, 2008). This difference seems especially pronounced for interpersonal targets (see Figure 1). Furthermore, results also indicate that hate is more intense than dislike, anger, and contempt across targets, which is consistent with previous theorizing by several scholars (Opatow & McClelland, 2007; Staub, 2005; Sternberg & Sternberg, 2008).

The current findings uncovered three more distinctive features of hate. First, results revealed higher emotional arousal scores when participants reported their hate feelings compared with all the other emotions at the interpersonal level (except for dislike for which we did not measure arousal). Second, at the interpersonal level, participants consistently reported higher perceived threats to the self when describing their hate feelings as compared with all the other emotions; this supports previous theorizing suggesting the critical role of self-relevant threats in the development of hate (Baumeister & Butz, 2005; Fromm, 1992; Staub, 2005). And third, across studies interpersonal hate consistently evoked higher attack-oriented behavioral tendencies than interpersonal dislike, anger, contempt, and marginally disgust ( $p < .07$ ), reaffirming attack behavior tendencies as another hate's distinctive feature (Allport, 1954; Opatow & McClelland, 2007; Staub, 2011). The latter finding is consistent with the idea that hate is oriented toward the broader goal of actively removing targets from participant's lives (e.g., psychologically, socially or symbolically, see Roseman & Steele, 2018), rather than only physically harming or eliminating them by aggressive or violent means. Further, the tendency to attack-oriented behaviors may suggest that the experience of hate does not allow people to be inactive (e.g., to simply let it pass by,

**Table 8**

*Summary of the Differences Between Hate and Dislike, Anger, Contempt, and Disgust Across Targets and Dimensions*

Emotion	Arousal	Attack	P.Threats	Intensity	S.Threats	Duration	Withdraw	Valence
Dislike	—	B	B	B	B	IP	IP	—
Anger	B	IP	IP	B	IP	IP		
Contempt	B	B	IP	B				
Disgust	IP	IP*	IP					

*Note.* B = significant differences from hate in both targets; IP = significant differences from hate only in the interpersonal target. P.Threats = personal threats; S.Threats = social threats. Emotions are organized from top to bottom, from the most to the less differentiated from hate. Dimensions are organized left to right, from the more distinctive of hate to the less.

\*  $p = .07$ .



because it will not pass by) as they need to confront the causes of the feeling sooner or later.

We found some evidence that hate is especially distinct from anger, contempt, and disgust at the interpersonal level. This may indicate that hate, once developed, operates strongly between individuals. One might speculate that hate between individuals develops through specific, concrete, and (often) repeated interactions, which constitutes a strong basis for intense and long-lasting feelings of hate, along with tendencies to attack the person for various reasons (e.g., to restore justice, to teach the person a lesson, or to actively confront and criticize). In contrast, hate between groups can also be intense, but overlaps more strongly with contempt and disgust, which typically may be based less on histories of one-on-one interactions, but rather on differences in beliefs or moral principles (e.g., different camps in the political spectrum). Such issues are intriguing topics for future research.

### Implications for Hate and Emotion Research

The present findings have at least three broad implications for research on hate and negative emotions. First, our findings contribute to an empirical foundation for the scientific understanding of hate, and what makes it uniquely different from dislike, anger, contempt, and disgust. Our results uncover differences between hate and these emotions in specific dimensions. It is still to be determined whether hate arises gradually as a second-order enduring state from the repeated and simultaneous activation of dislike, anger, contempt, and disgust, or whether it shaped by a single (or only a very few) incident. Of course, other negative emotions we did not address here<sup>11</sup> may also make that picture more complete. By examining hate features, we also complement previous findings of social-functional models of emotions depicting moral disgust as the most damaging and undesirable emotion to be target of, preceded by contempt and anger in a similar sequence as the one we found (Hutcherson & Gross, 2011).

A second implication is that differences between hate versus other negative emotions can hold for some dimensions but not for others. Measuring multiple dimensions simultaneously has the advantage of (a) making more comprehensive comparisons between emotions; (b) capturing differences of degree and kind; and (c) conciliating controversies between quantitative versus qualitative perspectives as well as modular versus dimensional perspectives, which are increasingly recognized as complementary rather than antagonistic (e.g., Bliss-Moreau et al., 2020; Harmon-Jones et al., 2016). For instance, in the present research differences in intensity, duration, and arousal between hate and specific emotions can be interpreted as differences in degree. Conversely, differences in threat perceptions and action tendencies can be interpreted as differences of kind, as they highlight the causes and consequences of emotions. This approach provides more elements for establishing refined differentiations within the complex human emotional palette. Two related issues are promising avenues for future research. First, the question of which particular dimensions, or interactions between them, are more relevant for drawing differences between hate and other emotions (e.g., reciprocal interactions between duration and intensity, between threat perceptions and arousal, or between intensity and attack tendencies). And second, the phenomenological gap between the terms used for reporting emotions and their subjective experience. For instance,

previous research has evidenced overlap in the meaning of the terms disgust, anger and being grossed out when reporting emotional experiences (Nabi, 2002). Thus, the degree of conceptual overlap between the emotions we addressed and hate is still a question to explore further.

Finally, addressing emotions both from an interpersonal and intergroup perspective broadens the scope for generalizability and account for the relations and particularities between interpersonal and intergroup emotions. For example, most differences between hate and dislike were found for both the interpersonal and intergroup targets, but this was less true for the three moral emotions. Indeed, various differences between hate versus anger, contempt, and disgust were significant for the interpersonal but not for intergroup targets. At the same time, it is interesting to note that supplemental analyses revealed that interpersonal hate consistently correlated with intergroup hate in all dimensions, suggesting that above and beyond differences between emotions, people display stable within-emotion patterns across targets (see Figure S6 in the online supplemental materials). In other words, people may differ quite substantially in their proneness to hate experiences irrespective of whether they operate at the interpersonal or intergroup level.

### Strengths and Limitations

The present research has some noteworthy strengths. First, our dependent measures were selected from a comprehensive review of converging factors from classic and contemporary theories about hate derived from different disciplines such as philosophy, social psychology, and emotion research. Therefore, our instrument reflects an updated synthesis of emotional, motivational, and behavioral factors associated with hate. Second, the analyses of participants' open answers allowed us to check the quality of our quantitative measures and provide (a natural) context for eliciting and examining people's construal of hate. One advantage of having qualitative and quantitative data is that researchers can test the convergence of results and elaborate and clarify the findings (Hammond, 2005; Lund, 2012). Third, we combined an exploratory study from which we draw bottom-up predictions on the basis of our conceptualization and theorizing on hate, with high-powered preregistered studies that account for random variation, and provide a critical test of the predictions derived from our theorizing and the preliminary results of the first study. This sequential combination of exploratory and confirmatory designs is suitable for generating and testing hypothesis simultaneously (Lund, 2012), particularly for an underexplored topic such as hate. Finally, we addressed some of the limitations associated with within-subjects designs by keeping the experimental sessions brief, excluding participants who reported repeated targets, randomizing the order of presentation of the conditions and the measures within each one, sequentially excluding participants who participated in previous studies, and statistically controlling for intrapersonal variation.

<sup>11</sup> Like disdain, which despite its semantic similarity with contempt and disgust, showed a significant high factor loading from a hate latent construct in our supplemental analyses.

The present research also has some limitations. First, our research is restricted by sampling in specific online communities in a single country and offers less experimental control over the circumstances under which participants completed the studies (Wright, 2006), which could limit generalizability. Future studies on hate face the challenge to overcome these limitations by collecting data in nationally representative samples, conducting large-scale multicountry comparisons, finding novel methods to elicit hate in controlled ways in the laboratory, and conducting longitudinal studies on hate to understand its development over time (Opatow & McClelland, 2007). Second, our measures rely on participants' self-reports, and we measured only a limited range of action tendencies. Future research should also examine the patterns of co-occurrence of specific behaviors and discrete emotions related to hate in contrast with other negative feelings, as well as electrodermal, electroencephalographic, and electromyographic indices of hate to reach more fine-grained distinctions. Implementing complementary psychometric, neurophysiological, and behavioral measures could be informative for future instrument design and validation for measuring hate's distinct features and outcomes. Third, across studies we employed a pairwise comparison strategy between hate and each emotion using a within-subjects design only, which has inherent limitations related to carry-over or demand effects (Charness et al., 2012). Although we strived to control for within-subject variation both methodologically and statistically, using a multicomparison between-subjects design strategy for contrasting hate with the other emotions simultaneously could be of potential value in future research to control for possible amplifying effects due to the within-subjects contrasts. Finally, although we addressed the most common emotions associated with hate, it is still a restricted spectrum of the whole variety of negative emotions, and the possible combinations of emotions that could be relevant for understanding hate.

## Concluding Remarks

Ever since the early formal conceptualizations of hate by Darwin in 1872, who claimed that hate manifests as rage (Royzman et al., 2005), hate's distinctive quality has been blurred across other related negative emotions. Although hate has been on the scientific agenda of the social and behavioral science for decades, perhaps even before Allport (1954), it has largely been neglected empirically. Conceptualizations of hate need empirical tests, especially in terms of its unique defining features, its causes and consequences, and its functional value. The present research is a first step toward providing an empirical basis for conceptualizing hate as an intense and enduring emotion, closer to (moral) disgust and contempt than to anger or dislike, associated with personal threat perceptions and which motivate attack-oriented behavioral tendencies based on the active impulse of distancing from the targets. Such insights may help us understand the psychological implications of hate. For example, the combination of "arousing" and "enduring" for a negative emotion seems psychologically taxing and may determine chronic stress and psychological well-being. Also, several big questions may be raised. For example, how can science get a grip on the functions of hate? Why do people seem

to hate groups so quickly, often in the absence of repeated interactions with members of that group? What is the relationship between interpersonal and intergroup hate? Our findings underline the role of a sophisticated emotional mechanism for actively coping with relatively enduring threats to the self (or others or groups close to the self). We close by noting that hate provides only one perspective to conflict-sensitive relations between individuals and groups, but one that may help us understand the roots of conflict as well as the ways in which destructive conflicts between people and groups can be effectively reduced or even eliminated.

## References

- Allport, G. (1954). *The nature of prejudice*. Addison Wesley Pub. Co.
- Aron, E. N., & Aron, A. (1996). Love and expansion of the self: The state of the model. *Personal Relationships*, 3(1), 45–58. <https://doi.org/10.1111/j.1475-6811.1996.tb00103.x>
- Aumer, K., & Bahn, A. C. K. (2016). Hate in intimate relationships as a self-protective emotion. In K. Aumer (Ed.), *The psychology of love and hate in intimate relationships* (pp. 131–151). Springer International Publishing. [https://doi.org/10.1007/978-3-319-39277-6\\_8](https://doi.org/10.1007/978-3-319-39277-6_8)
- Aumer, K., & Hatfield, E. (2007). The design of everyday hate: A qualitative and quantitative analysis. *Interpersona: An International Journal on Personal Relationships*, 1(2), 143–172. <https://doi.org/10.5964/ijpr.v1i2.11>
- Aumer, K., Bahn, A. C. K., Janicki, C., Guzman, N., Pierson, N., Strand, S. E., & Totlund, H. (2016). Can't let it go: Hate in interpersonal relationships. *Journal of Relationships Research*, 7, e2. <https://doi.org/10.1017/jrr.2016.2>
- Baumeister, R. (1997). *Evil: inside human cruelty and violence*. Freeman.
- Baumeister, R., & Butz, D. (2005). Roots of hate, violence, and evil. In R. Sternberg (Ed.), *The psychology of hate* (pp. 87–102). American Psychological Association. <https://doi.org/10.1037/10930-005>
- Beck, A. T. (2000). *Prisoners of hate: the cognitive basis of anger, hostility, and violence*. Perennial.
- Ben-Ze'ev, A. (2018). Is hate worst when it is fresh? The development of hate over time. *Emotion Review*, 10(4), 322–324. <https://doi.org/10.1177/1754073918787233>
- Ben-Ze'ev, A. (2000). *The subtlety of emotions*. MIT Press. <https://doi.org/10.7551/mitpress/6548.001.0001>
- Bliss-Moreau, E., Williams, L. A., & Santistevan, A. C. (2020). The immutability of valence and arousal in the foundation of emotion. *Emotion*, 20(6), 993–1004. <https://doi.org/10.1037/emo0000606>
- Bradley, M. M., & Lang, P. J. (1994). Measuring emotion: The self-assessment manikin and the semantic differential. *Journal of Behavior Therapy and Experimental Psychiatry*, 25(1), 49–59. [https://doi.org/10.1016/0005-7916\(94\)90063-9](https://doi.org/10.1016/0005-7916(94)90063-9)
- Brewer, M. B. (1999). The psychology of prejudice: Ingroup love and out-group hate? *Journal of Social Issues*, 55(3), 429–444. <https://doi.org/10.1111/0022-4537.00126>
- Charness, G., Gneezy, U., & Kuhn, M. A. (2012). Experimental methods: Between-subject and within-subject design. *Journal of Economic Behavior & Organization*, 81(1), 1–8. <https://doi.org/10.1016/j.jebo.2011.08.009>
- Chetty, N., & Alathur, S. (2018). Hate speech review in the context of online social networks. *Aggression and Violent Behavior*, 40, 108–118. <https://doi.org/10.1016/j.avb.2018.05.003>
- Darwin, C. (1872). *The expression of the emotions in man and animals*. John Murray. <https://doi.org/10.1037/10001-000>
- Ekman, P. (1992). Are there basic emotions? *Psychological Review*, 99(3), 550–553. <https://doi.org/10.1037/0033-295X.99.3.550>

- Ekman, P., Friesen, W. V., O'Sullivan, M., Chan, A., Diacoyanni-Tarlatzis, I., Heider, K., Krause, R., LeCompte, W. A., Pitcairn, T., & Ricci-Bitti, P. E. (1987). Universals and cultural differences in the judgments of facial expressions of emotion. *Journal of Personality and Social Psychology*, 53(4), 712–717. <https://doi.org/10.1037/0022-3514.53.4.712>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). GPower 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Fischer, A., & Giner-Sorolla, R. (2016). Contempt: Derogating others while keeping calm. *Emotion Review*, 8(4), 346–357. <https://doi.org/10.1177/1754073915610439>
- Fischer, A., Halperin, E., Canetti, D., & Jasini, A. (2018). Why we hate. *Emotion Review*, 10(4), 309–320. <https://doi.org/10.1177/1754073917751229>
- Frijda, N. H. (1986). *The emotions*. Cambridge University Press.
- Fromm, E. (1992). *The anatomy of human destructiveness*. H. Holt.
- Goodvin, A., Roseman, I. J., & Steele, A. K. (2018). *Is hatred a distinct emotion?* Manuscript in preparation.
- Halperin, E. (2008). Group-based hatred in intractable conflict in Israel. *The Journal of Conflict Resolution*, 52(5), 713–736. <https://doi.org/10.1177/0022002708314665>
- Halperin, E., Canetti-Nisim, D., & Hirsch-Hoefler, S. (2009). The central role of group-based hatred as an emotional antecedent of political intolerance: Evidence from Israel. *Political Psychology*, 30(1), 93–123. <https://doi.org/10.1111/j.1467-9221.2008.00682.x>
- Halperin, E., Cannetti, D., & Kimhi, S. (2012). In love with hatred: Rethinking the role hatred plays in shaping political behavior. *Journal of Applied Social Psychology*, 42(9), 2231–2256. <https://doi.org/10.1111/j.1559-1816.2012.00938.x>
- Halperin, E., Russell, A. G., Dweck, C. S., & Gross, J. J. (2011). Anger, hatred, and the quest for peace: Anger can be constructive in the absence of hatred. *The Journal of Conflict Resolution*, 55(2), 274–291. <https://doi.org/10.1177/0022002710383670>
- Hammond, C. (2005). The wider benefits of adult learning: An illustration of the advantages of multi-method research. *International Journal of Social Research Methodology*, 8(3), 239–255. <https://doi.org/10.1080/13645570500155037>
- Harmon-Jones, C., Bastian, B., & Harmon-Jones, E. (2016). The discrete emotions questionnaire: A new tool for measuring state self-reported emotions. *PLoS ONE*, 11(8), e0159915. <https://doi.org/10.1371/journal.pone.0159915>
- Hutcherson, C. A., & Gross, J. J. (2011). The moral emotions: A social-functional account of anger, disgust, and contempt. *Journal of Personality and Social Psychology*, 100(4), 719–737. <https://doi.org/10.1037/a0022408>
- Jin, W., Xiang, Y., & Lei, M. (2017). The deeper the love, the deeper the hate. *Frontiers in Psychology*, 8, 1940. <https://doi.org/10.3389/fpsyg.2017.01940>
- Karinen, A. K., Tybur, J. M., & De Vries, R. (2021). The disgust traits: Self–other agreement in pathogen, sexual, and moral disgust sensitivity and their independence from HEXACO personality. *Emotion*. Advance online publication. <https://doi.org/10.1037/emo0000795>
- Kucuk, S. (2016). *Brand hate: Navigating consumer negativity in the digital world* (1st ed.). Palgrave Macmillan.
- Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B. (2017). lmerTest package: Tests in linear mixed effects models. *Journal of Statistical Software*, 82(13), 1–26. <https://doi.org/10.18637/jss.v082.i13>
- Lindsen, J. P., Moonga, G., Shimojo, S., & Bhattacharya, J. (2011). Swayed by the music: Sampling bias towards musical preference distinguishes like from dislike decisions. *Consciousness and Cognition*, 20(4), 1781–1786. <https://doi.org/10.1016/j.concog.2011.01.008>
- Lund, T. (2012). Combining qualitative and quantitative approaches: Some arguments for mixed methods research. *Scandinavian Journal of Educational Research*, 56(2), 155–165. <https://doi.org/10.1080/00313831.2011.568674>
- Martínez, C. A., van Prooijen, J.-W., & Van Lange, P. (2021, June 29). *Hate: Toward understanding its distinctive features across interpersonal and intergroup targets*. [osf.io/pyza2/](https://osf.io/pyza2/)
- Miller, W. (2009). Hatred. In D. Sander & K. Scherer (Eds.), *The Oxford companion to emotion and the affective sciences* (pp. 203–204). Oxford University Press.
- Nabi, R. L. (2002). The theoretical versus the lay meaning of disgust: Implications for emotion research. *Cognition and Emotion*, 16(5), 695–703. <https://doi.org/10.1080/02699930143000437>
- Opotow, S., & McClelland, S. I. (2007). The intensification of hating: A theory. *Social Justice Research*, 20(1), 68–97. <https://doi.org/10.1007/s11211-007-0033-0>
- Pilkington, E. (2018, November 1). Feel the love, feel the hate—my week in the cauldron of Trump's wild rallies. *The Guardian*. <https://www.theguardian.com/us-news/2018/nov/01/trump-rallies-america-midterms-white-house>
- Rempel, J. K., & Sutherland, S. (2016). Hate: Theory and implications for intimate relationships. In K. Aumer (Ed.), *The psychology of love and hate in intimate relationships* (pp. 105–129). Springer International Publishing. [https://doi.org/10.1007/978-3-319-39277-6\\_7](https://doi.org/10.1007/978-3-319-39277-6_7)
- Riek, B. M., Mania, E. W., & Gaertner, S. L. (2006). Intergroup threat and out-group attitudes: A meta-analytic review. *Personality and Social Psychology Review*, 10(4), 336–353. [https://doi.org/10.1207/s15327957pspr1004\\_4](https://doi.org/10.1207/s15327957pspr1004_4)
- Rights, J. D., & Sterba, S. K. (2018). Quantifying explained variance in multilevel models: An integrative framework for defining R-squared measures. *Psychological Methods*. Advance online publication. <https://doi.org/10.1037/met0000139>
- Roseman, I. J., & Steele, A. K. (2018). Concluding commentary: Schadenfreude, glückschmerz, jealousy, and hate—what (and when, and why) are the emotions? *Emotion Review*, 10(4), 327–340. <https://doi.org/10.1177/1754073918798089>
- Rozin, E. B., McCauley, C., & Rozin, P. (2005). From Plato to Putnam: Four ways to think about hate. In R. Sternberg (Ed.), *The psychology of hate* (pp. 3–35). American Psychological Association. <https://doi.org/10.1037/10930-001>
- Rozin, P., Lowery, L., Imada, S., & Haidt, J. (1999). The CAD triad hypothesis: A mapping between three moral emotions (contempt, anger, disgust) and three moral codes (community, autonomy, divinity). *Journal of Personality and Social Psychology*, 76(4), 574–586. <https://doi.org/10.1037/0022-3514.76.4.574>
- Rusbult, C. E., & Van Lange, P. A. M. (2003). Interdependence, interaction, and relationships. *Annual Review of Psychology*, 54(1), 351–375. <https://doi.org/10.1146/annurev.psych.54.101601.145059>
- Schriber, R. A., Chung, J. M., Sorensen, K. S., & Robins, R. W. (2017). Dispositional contempt: A first look at the contemptuous person. *Journal of Personality and Social Psychology*, 113(2), 280–309. <https://doi.org/10.1037/pspp0000101>
- Staub, E. (2005). The origins and evolution of hate, with notes on prevention. In R. Sternberg (Ed.), *The psychology of hate* (pp. 51–66). American Psychological Association. <https://doi.org/10.1037/10930-003>
- Staub, E. (2011). *Overcoming evil: Genocide, violent conflict, and terrorism*. Oxford University Press.
- Stephan, W., Ybarra, O., & Morrison, K. (2009). Intergroup threat theory. In T. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 43–60). Psychology Press.
- Sternberg, R. (2003). A duplex theory of hate: Development and application to terrorism, massacres, and genocide. *Review of General Psychology*, 7(3), 299–328. <https://doi.org/10.1037/1089-2680.7.3.299>
- Sternberg, R., & Sternberg, K. (2008). *The nature of hate*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511818707>



- Tracy, J. L., & Randles, D. (2011). Four models of basic emotions: A review of Ekman and Cordaro, Izard, Levenson, and Panksepp and Watt. *Emotion Review*, 3(4), 397–405. <https://doi.org/10.1177/1754073911410747>
- Tybur, J. M., Lieberman, D., & Griskevicius, V. (2009). Microbes, mating, and morality: Individual differences in three functional domains of disgust. *Journal of Personality and Social Psychology*, 97(1), 103–122. <https://doi.org/10.1037/a0015474>
- Van Bavel, J., Ray, J., & Cunningham, W. (2018). *The psychology of hate: Moral concerns differentiate hate from dislike*. PsyArXiv. <https://doi.org/10.31234/OSF.IO/X9Y2P>
- Van Doorn, J. (2018). Anger, feelings of revenge, and hate. *Emotion Review*, 10(4), 321–322. <https://doi.org/10.1177/1754073918783260>
- Verduyn, P., & Lavrijsen, S. (2015). Which emotions last longest and why: The role of event importance and rumination. *Motivation and Emotion*, 39(1), 119–127. <https://doi.org/10.1007/s11031-014-9445-y>
- Wright, K. B. (2006). Researching internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. *Journal of Computer-Mediated Communication*, 10(3), JCMC1034. <https://doi.org/10.1111/j.1083-6101.2005.tb00259.x>
- Yılmaz, B., Korkmaz, S., Arslan, D. B., Güngör, E., & Asyali, M. H. (2014). Like/dislike analysis using EEG: Determination of most discriminative channels and frequencies. *Computer Methods and Programs in Biomedicine*, 113(2), 705–713. <https://doi.org/10.1016/j.cmpb.2013.11.010>
- Zeki, S., & Romaya, J. P. (2008). Neural correlates of hate. *PLoS ONE*, 3(10), e3556. <https://doi.org/10.1371/journal.pone.0003556>

Received February 17, 2021

Revision received July 13, 2021

Accepted September 26, 2021 ■