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Abstract

When people feel prejudice toward a group, they can justify their prejudice by perceiving the group as threatening. Three experiments tested the hypothesis that prejudice causes threat perception, using affective conditioning to create new prejudice toward unfamiliar groups. The experimentally created prejudice increased threat perception (Expts. 1-3), except when threat information was inconsistent with conditioned affect (Expt. 3). Consistency of affect and threat information is necessary in order for threat to be a plausible justification of prejudice. Mere prejudice can cause perception of threat in the absence of information about the group; this finding suggests threats are not necessarily inherent to the characteristics of the group. Threat perception can be used as a way to explain the experience of prejudice, rather than forming the source of the prejudice itself.

Keywords: threat, prejudice, justification-suppression model

Threat as Justification of Prejudice

Articulate reasons are cogent for us only when our inarticulate feelings of reality have already been impressed in favor of the same conclusion.

—William James (1902, p. 74)

When George Zimmerman saw a young black man wearing a hoodie walking down the street at night in Sanford, Florida, he quickly assumed that Trayvon Martin was dangerous and up to no good. This snap judgment led to a confrontation which ended in Zimmerman fatally shooting Martin, who was unarmed. One way of looking at these events is to suggest that because Black people are believed to be threatening, activation of the threat-management system (Schaller & Neuberg, 2012) influenced Zimmerman's decision to confront Martin. Alternatively, one might consider Zimmerman's perception that Martin was threatening as a way of explaining the fear he felt in the immediate social situation (Crandall & Eshleman, 2003). In reality, both of these accounts are likely to be true. Feelings and beliefs about known social groups are inextricably linked—threat can cause prejudice and prejudice can cause threat perception. Thus to fully capture the complex relationship between prejudice and threat, theories of prejudice must acknowledge and experimentally test both causal pathways.

In this paper, I investigate the possibility that prejudice[1] can temporally precede and causally influence threat perception. This hypothesis is derived from the justification-suppression model of prejudice expression (JSM; Crandall & Eshleman, 2003), which states that conflict between negative affect and egalitarian beliefs creates psychological tension. Consequently, prejudice is often initially suppressed. The tension can be released, however, if there is an available *justification*. Justifications are "explanations for why a prejudice may be acceptable"

[1] I adopt the definition of prejudice from integrated threat theory—"negative affect associated with outgroups" (Stephan & Stephan, 2000, p. 27; see also Crandall & Eshleman, 2003).

(Crandall & Eshleman, 2003, p. 425) that allow for the expression of prejudice. Examples of justifications are beliefs, values, religion, and stereotypes. While most theory and research on justifications have conceptualized them as causes of prejudice, the JSM considers justifications to be releasers of prejudice. The current research focuses on threat as a justification of prejudice. Why are certain groups perceived to pose certain threats? Perhaps threats emerge as a way to understand the experience of prejudice.

Certainly both feelings and beliefs influence group evaluations. Just as several popular theories focus on stereotypes and threats as sources of prejudice (Cottrell & Neuberg, 2005; Fiske, Cuddy, Glick & Xu, 2002; Mackie, Devos, & Smith, 2000; Stephan & Stephan, 2000), so too is there ample evidence showing the affective foundation of evaluative processing (Forgas, 1995; Park & Judd, 2005). There are several reasons to believe the activation of prejudice can precede the activation of associated cognitions. First, the valence, arousal and motivational properties of affect each influence social judgments (Forgas, 1995). Also, affect predicts intergroup attitudes better than cognitive factors (Esses, Haddock, & Zanna, 1993). Nevertheless, prominent theories focus on threats as causes of prejudice. By contrast, a JSM perspective considers that threats might emerge *after* the activation of prejudice, as a way to explain the experience of prejudice.

Theories of Prejudice and Threat

Intergroup threat theory. Intergroup threat theory (ITT) provides a useful framework for understanding the relationship between prejudice and threat. The original model, called integrated threat theory (Stephan & Stephan, 2000), identified four types of threat as causes of prejudice—realistic and symbolic threat, intergroup anxiety, and negative stereotypes. Newer versions of the theory (Stephan & Renfro, 2002; Stephan, Ybarra, & Morrison, 2009) include

only realistic and symbolic threats. *Realistic threats* harm the group's power, resources, or general welfare. *Symbolic threats* undermine the group's religion, values, belief system, morality, or worldview.

ITT conceptualizes threats as *causes* of prejudice; "the core of the model is…the idea that threat causes prejudice" (Stephan & Stephan, 2000, p. 37). The theory discusses various antecedents (e.g., history of intergroup relations, cultural values, situational factors, or characteristics of the groups) and consequences of threat (e.g., cognitive, emotional, and behavioral responses), but conceptualizes prejudice only as a consequence of threat. Importantly, the idea that prejudice can cause threat has not been emphasized in any version of the theory.

Many empirical studies cited in support of ITT provide only correlational evidence. For example, Stephan, Ybarra, and Bachman (1999) found that threats were associated with prejudice toward immigrant groups. These findings have been interpreted as supportive of ITT's basic causal assumption that threat causes prejudice. But, as is always true with correlational data of this sort, the data are wholly consistent with the reverse causal model—that prejudice causes threat. Experiments are needed to draw conclusions about either causal direction.

There is some experimental evidence supportive of ITT (e.g., Knowles, Lowery, Hogan, & Chow, 2009; Morrison & Ybarra, 2008, 2009; Stephan, Renfro, Esses, Stephan, & Martin, 2005). Yet the intergroup threat theorists themselves acknowledge that "although these studies clearly support the basic causal assumption of the theory (threats lead to prejudice), they do not preclude the possibility that the opposite causal pathway exists" (Stephan & Renfro, 2002, p. 196). The experiments in this paper test this "opposite" causal pathway.

The Sociofunctional Approach. Like ITT, Cottrell and Neuberg's sociofunctional threat-based approach to prejudice (Cottrell & Neuberg, 2005; Neuberg & Cottrell, 2002)

hypothesizes that threats are causes of prejudices. They write that, "from qualitatively different threats should emerge qualitatively different, and functionally relevant, emotions" (Cottrell & Neuberg, 2005, p. 770). The central prediction is that specific threats cause specific prejudices; which threats are perceived from any target group depends upon the functional relationship between the target and perceiver's groups. One implication of this is, given a stable functional relationship between the target and perceiver's groups, there will be a consistent threat profile for each target group. The threats perceived from a target group are meaningfully tied to the intergroup context and to the specific emotions they evoke.

The sociofunctional approach relies almost exclusively on correlational data for its empirical support (cf. Wilbur, Shapiro, & Neuberg, 2005). Specific groups are shown to be associated with specific threats and emotions (Cottrell & Neuberg, 2005; Cottrell, Richards, & Nichols, 2010). But these data only demonstrate that specific threats are correlationally linked to specific emotions. Threats to safety can certainly cause fear—but if a fear already exists, could not a belief that the group is dangerous follow close behind?

Justification-Suppression Model. In contrast to ITT and the sociofunctional approach, the JSM (Crandall & Eshleman, 2003) conceptualizes threat perception as a dynamic process. Justifications are relatively narrow in scope, often constructed with a particular prejudice in mind. Rather than being tied to the inherent qualities of the group or to the nature of the intergroup relationship between target and perceiver, threats can be tailored to meet the needs of the immediate social situation. This suggests that the same group might be perceived to pose different threats in different situations. Beliefs that a group is dangerous may be conjured to explain why one avoids a certain part of town, while beliefs that the same group is immoral would more easily explain one's support for war being waged against the group.

The JSM provides guidance on when a threat may function as justification, noting that "it is essential for the establishment of justification that one expect that others would accept the threat posed by the to-be-prejudiced against group as an authentic threat" (Crandall & Eshleman, 2003, p. 431). In other words, to serve as justification a threat must be *plausible*; baseless or far-fetched threats are unlikely to satisfy either a private or a public audience as explanations for why the prejudice is acceptable. The most plausible threat in any given situation likely depends on the information available about the group and the perceiver's goals, such as the need to justify a particular discriminatory behavior.

Stereotypes and Threat as Justification of Prejudice

Theories of prejudice have long theorized about the justification function of stereotypes (Allport, 1954; Katz & Braly, 1933; Lippman, 1922), but until recently there was surprisingly little direct evidence that stereotypes could emerge as justifications of mere prejudice—affective associations uncontaminated by prior stereotypes, threats, or knowledge about the groups (compare Crandall, Bahns, Warner, & Schaller, 2011 to Rutland & Brown, 2001). Several studies have shown that stereotypes can form to rationalize an attitude or a social role (Eagly & Mladinic, 1989; Hoffman & Hurst, 1990). Recently, Crandall et al. (2011) demonstrated that prejudice can cause stereotypes to emerge; groups associated with negative affect were stereotyped as less warm but no less competent.

The experiments presented in this paper offer several contributions that extend the work of Crandall et al. (2011). First, they demonstrate that threat perceptions (in addition to stereotypes) can be justifications of prejudice. Second, they measure threat with more specificity than the broad dimensions of warmth and competence measured by Crandall et al.; this provides a more fine-grained test of the hypothesis that specific beliefs about a group can emerge to

justify prejudice. Third, and most importantly, these experiments are the first to test the plausibility hypothesis outlined by the JSM.

The plausibility hypothesis says one must expect that others would accept the threat as an authentic threat in order for threat to serve a justification function; the experiments presented in this paper test this hypothesis in several ways. Experiments 1 and 2 measured multiple kinds of threat (with varying degrees of specificity), to explore the idea that some threats may be more likely than others to emerge from conditioned prejudice. If some threats emerge in response to conditioned prejudice but others do not, this would suggest that only the emergent threats are plausible justifications for prejudice in that particular social context. Experiment 3 manipulated plausibility directly, by providing diagnostic information about threat that was either consistent or inconsistent with conditioned prejudice. Threat should emerge in response to conditioned prejudice when threat is plausible (i.e., when threat information and conditioned prejudice are consistent) but not when threat is implausible (i.e., when threat information and conditioned prejudice are inconsistent). This design helps to pinpoint the justification function of threat, by showing that the effect of conditioned prejudice on threat is eliminated when the plausibility of threat is undermined.

The idea that threat may be used to justify prejudice is not new, but until now it had not been experimentally tested. LaPiere (1936) identified perceived threats, which he called "type-rationalizations," as the primary reasons Californians gave to explain their antipathy toward Armenian immigrants. Beliefs that Armenians were "dishonest, lying and deceitful" were used to rationalize negative attitudes (pp. 233-234). While LaPiere's analysis suggests that Armenian antipathy predated the development and application of type-rationalizations, these data cannot address the causal relationship between prejudice and threat.

Several recent studies by Pereira and colleagues have demonstrated that prejudice can predict threat. Pereira, Vala, and Leyens (2009) manipulated infrahumanization of a disliked group and found that increased discrimination against the group was mediated by symbolic threat perception. Additionally, Pereira, Vala, and Costa-Lopes (2010) found that prejudice was associated with increased threat perception, which in turn was associated with increased discrimination against immigrants. The researchers have interpreted these findings to mean that threat serves to justify discrimination.

The current research builds upon the work of Pereira and colleagues in two important ways. First, experimental methods are used to test the hypothesis that prejudices causes threat, whereas the studies by Pereira et al. (2010) are correlational. Second, threat is conceptualized as justification of prejudice rather than as justification of discrimination. Prejudice may cause threat perception for several different reasons. One possibility is that prejudice causes threat because threat justifies having the prejudice (i.e., it explains why the group is "bad"). Another possibility is that prejudice causes threat because threat justifies subsequent discrimination (i.e., it provides an excuse for "bad" behavior). The current set of experiments provides a test of the former, whereas the studies by Pereira et al. (2009, 2010) focus on the latter.

The correlation that Stephan et al. (1999), Neuberg and Cottrell (2005) and others have shown between prejudice and threat may mean prejudice causes threat, threat causes prejudice, or even that another variable accounts for their relation. Experimental methods are necessary to distinguish between threat's role as a reason for—or rationalization of—prejudice.

Overview

Three experiments tested the hypothesis that prejudice causes threat perception. A supraliminal conditioning paradigm adapted from Olson and Fazio (2001) created "new"

prejudices toward unfamiliar groups—affective associations that are experimentally introduced (see also Crandall et al., 2011). These methods draw upon evidence that affectively-laden attitudes can be created through associative learning processes (Hofmann, DeHouwer, Perugini, Baeyens, & Crombez, 2010; Krosnick, Betz, Jussim, & Lynn, 1992; Olson & Fazio, 2001). While the effects of such a manipulation are likely to be subtle (effect sizes reported by Olson & Fazio and Crandall et al. range from .15-.32), the method provides the experimental control necessary for testing the causal direction of the relationship between prejudice and threat.

The goal of the first two experiments was to determine whether threat emerges in response to newly created prejudice. Several different stimulus sets and several different measures of threat were used to ensure that the effects are not dependent on the content of the manipulation or the way threat is assessed. The third experiment manipulated the consistency of affect and threat-related information, to test whether a threat must be plausible to serve as justification. What happens when diagnostic information about threat is inconsistent with conditioned affect, making threat an implausible justification of prejudice? Observing such a scenario allows one to discover whether threat can emerge to justify prejudice even in the face of contradictory information.

Threat can cause prejudice—existing theory and research makes this abundantly clear. In this paper, I demonstrate that the opposite causal direction can occur, that new prejudice is not difficult to create, and that qualitatively different threats can emerge from the same source, provided that the threats are plausible justifications of prejudice.

Experiment 1

The goal of Experiment 1 was to test the hypothesis that newly created prejudice increases perceived threat. In order to provide a clear test of causal direction, it is critical that the

content of the manipulation is unrelated to the measurement of threat. Therefore the manipulation included negative images and words that convey negative emotion but are not related to the social groups except through conditioning. Two stimulus sets were tested—one set emphasized feelings of disgust (e.g., rats, cockroaches, human waste) and the other set emphasized feelings of fear (e.g., snakes, sharks, dogs baring teeth; see Appendix for complete list of stimuli). While disgust and fear are undoubtedly linked to threat, the stimuli used to elicit these emotions were carefully selected to be unrelated to the kinds of social threats that comprised the dependent measures (e.g., taking away jobs, not sharing American moral values).

Method

Participants

Participants were 95 (56 women) undergraduates (n=35; 21 women) and nonstudent adults (n=60; 35 women) from the same Midwestern city; each received ten dollars payment. Participants were recruited through flyers posted on campus (undergraduates) and through Craigslist (nonstudent adults).

Pre-testing of Target Countries

A separate sample (N=27) rated 11 countries on affect and familiarity. A feeling thermometer (0=*very positive*, 100=*very negative*) assessed affect toward each country. Eritrea and Mauritania were selected as target countries because they received mean ratings that were very close to the midpoint of the scale (Eritrea M=44.81, SD=21.01, Mauritania M=45.93, SD=20.05); the difference was not significant, d=.05). On a rating scale (0=*I've never heard of it*, 1=*I've heard of it but don't know where it is*, 2=*I've heard of it and know where it is*), the same two countries were rated as unfamiliar (Eritrea M=0.52, SD=0.85, Mauritania M=0.44, SD=0.70; the difference was not significant, d=.10).

Conditioning Procedure

Pre-testing of stimuli. A separate sample (*N*=74) rated pictures from the International Affective Picture System (IAPS; Lang, Bradley, & Cuthbart, 2005). Participants rated one of two sets of 33 pictures, indicating how much the image made them feel disgusted, angry, discouraged, fearful, interested, or happy (1=*not at all,* 5=*very much so*) using items from Izard, Libero, Putnam, and Haynes (1993). A second sample (*N*=42) rated a set of 32 words on the same six emotions.

Two stimulus sets were selected, each comprised of 20 negative images and words (10 each), and 20 positive images and words (see Appendix). Negative stimuli were selected based on the criteria that the image or word had high ratings (above the midpoint of the scale) on negative emotions and low ratings (below the midpoint of the scale) on positive emotions (and the reverse for positive stimuli). Of the four negative emotions, Set 1 stimuli elicited the highest ratings on disgust and Set 2 stimuli elicited the highest ratings on fear.

Procedural details. SuperLab 4.5 was used to present 430 screens of information, broken down into five experimental blocks. Stimulus materials were presented for 1500 ms each on Dell Optiplex 755 Minitowers and Dell E207WFPc monitors with a refresh rate of 85Hz. Participants were seated approximately 46 cm from the computer screen, positioned at eye-level. The conditioning phase (five blocks) lasted about 12 minutes.

There were 40 critical trials (20 trials for each country) involving the target countries in which positive-affect stimuli were consistently paired with one country and negative-affect stimuli were consistently paired with the other country. In each block, the country names Eritrea and Mauritania appeared 4 times each (2 times on the same screen as a positive or negative image and 2 times on the same screen as a positive or negative word). Interspersed among these

trials were 10 trials of distracter country names, 16 trials of blank screens, and 52 trials of neutral images and words that were not paired with either Eritrea or Mauritania.

Experimental design. The experiment used a 2 (Negative-Affect Country: Eritrea or Mauritania) x 2 (Stimulus Set: 1 or 2) x 2 (Country Rated: Eritrea, Mauritania) mixed design with repeated measures on Country Rated. Participants were randomly assigned to condition.

Cover story. Participants were told the study was about attention and vigilance and given instructions for a surveillance task asking them to push the space bar whenever a designated country name appeared on the screen. This task was designed to distract participants from focusing on the target countries and also to ensure that participants were attending to the stimuli.[2] Participants searched for a different country in each block of the experiment: Moldova, Slovenia, Oman, Azerbaijan, and Tajikistan. On some trials, the country name appeared on-screen alone, and on other trials it was paired with a neutral image or word.

Following the conditioning phase, all participants were given the same score, ostensibly based on the "percentage of targets correctly identified, the number of false alarms, and the average response time," and told this score was slightly above average. Participants were asked to answer questions about immigrants from the countries included in the task, "to help us determine whether your performance may have been affected by the particular countries included in this study." Describing the target countries as immigrant groups helped to increase the ecological validity of the study, but it also harmed the "purity" of the affective manipulation. Most people already hold stereotypes of immigrant groups. So while the threat perceptions that

[2] In each experiment, a funneled debriefing interview assessed participants' awareness of the contingencies between target countries and affective stimuli. A small number of participants (18%) expressed some contingency awareness (they were not, however, aware of the hypothesis). The manipulation's effect on feeling thermometer ratings was greater among contingency-aware compared to contingency-unaware participants (Expts. 1 and 2 only). This is consistent with a recent meta-analysis of evaluative conditioning effects which found smaller but still significant effect sizes for contingency-unaware relative to contingency-aware participants (Hofmann et al., 2010). Importantly, contingency awareness did not interact with the manipulation or dependent measures of threat; therefore all cases were retained in the analysis.

emerged may not have been entirely "new" (based on nothing but pure affect), any preexisting threats associated with immigrant groups should be the same for both countries; the repeated measures design ensures the internal validity of the study.

The first two blocks of the conditioning procedure were repeated halfway through the dependent measures; participants were told this was an opportunity to improve their score. All participants were (falsely) told they improved their score in the second round.

Dependent Measures

Countries were evaluated in random order; scale items were presented in random order.

Feeling thermometer. Following the first conditioning phase, participants rated their feelings toward each country whose name appeared during the task (the five distracter countries and Eritrea and Mauritania; 0=*very positive*, 100=*very negative*). Feeling thermometer ratings were used as a manipulation check.

Negative emotions. Next participants reported how much Eritreans and Mauritanians made them feel disgust, fear, and anger using items from the differential emotions scale (one item per emotion; Izard et al., 1993; 1=*not at all*, 7=*very much so*). Negative emotions were measured to determine whether the manipulation differentially affected specific emotions.

Realistic and symbolic threat scales. Following the second conditioning phase, participants rated each target group on perceived threat (1=*strongly disagree*, 7=*strongly agree*) with items adapted from Stephan et al. (1999). Four items (α=.83[3]) measured *realistic threat* with the stem "Eritrean/Mauritanian immigrants/immigration _____" (are taking jobs away from American citizens, are making our neighborhoods less safe, should be eligible for the same health-care benefits received by American citizens [reversed], has increased the tax burden on Americans). Four items (α=.84) measured *symbolic threat.* Three items used the stem

[3] Scale reliabilities are for the negative-affect country collapsed across the counterbalancing factor.

"Eritrean/Mauritanian immigrants/immigration _____" (share the same moral values as most Americans [reversed], is undermining traditional American culture, is contaminating America's reputation as moral and good); the fourth item was "The values and beliefs of Eritrean (Mauritanian) immigrants are *not* compatible with the values and beliefs of most Americans."

Results and Discussion

Analyses are reported collapsing across the counterbalancing factor (Negative-Affect Country: Eritrea or Mauritania); there were no significant effects for this factor. Possible gender effects were examined in Experiment 1; there were no significant gender effects. The absence of gender effects is consistent with a recent meta-analysis showing evaluative conditioning effects are unaffected by gender (Hofmann et al., 2010) and with previous research on the justification of prejudice using this method (Crandall et al., 2011).

Creation of Prejudice

Feeling thermometer ratings were analyzed with a 2x2 mixed model ANOVA. The between-subjects factor was Stimulus Set (1 or 2). The within-subjects factor was Country Rated (Eritrea, Mauritania). The country associated with negative stimuli (negative-affect country) was evaluated more negatively compared to the country associated with positive stimuli (positive-affect country), $F(1, 91)=4.47$, $p=.04$, $d=.19$ (see Table 1). These results indicate that the manipulation was successful in creating prejudice toward the negative-affect country. The interaction with stimulus set was not significant ($F<1$). All further analyses are collapsed across the stimulus set factor. [4]

Negative emotions were analyzed with a 3x2 ANOVA, with repeated measures on Emotion (disgust, anger, fear) and Country Rated (Eritrea, Mauritania). The manipulation significantly increased ratings of disgust ($F(1, 93)=8.70$, $p=.004$, $d=.32$), anger ($F(1, 93)=5.16$,

[4] Stimulus set did not interact with the reported effects for any of the dependent variables.

p=.025, d=.22), and fear (F(1, 93)=4.13, p=.045, d=.21; see Table 1), but it did not differentially affect specific emotions (interaction F<1). These findings suggest that the effect of the manipulation was to create a diffuse negative affect associated with the negative-affect country rather than a specific negative emotion linked to the content of the stimuli.

Emergent Threat Perception

Perceived threat was analyzed with a 2x2 ANOVA, with repeated measures on Threat Type (realistic, symbolic) and Country Rated (Eritrea, Mauritania). There was a main effect of conditioning such that conditioned prejudice increased perception of threat, F(1, 92)=4.65, p=.03, d=.19 (see Table 1). The interaction with threat type was not significant (F<1).

To provide further evidence that the conditioning procedure was indeed manipulating prejudice (and not threat), a series of mediational tests was conducted. Preacher and Hayes's (2008) bootstrapping macro was used to test the hypothesized mediation path in which the manipulation's effect on threat is mediated by prejudice (feeling thermometer ratings). The indirect effect of the conditioning manipulation on realistic threat through prejudice was significant (b = .11, SE = .08, 95% confidence interval [.004, .32]).[5] The manipulation increased prejudice, which in turn increased threat perception. By contrast, a test of the reverse mediation path in which the manipulation's effect on prejudice is mediated by threat was not significant (b = 1.71, SE = 1.26, 95% confidence interval [-.01, 5.52]). These results suggest that the most immediate effect of the conditioning procedure was to increase prejudice.

Findings from Experiment 1 support the hypothesis that prejudice causes threat perception. The creation of negative affective associations with unfamiliar groups caused new threats to emerge in the absence of information about the groups. The manipulation evoked a

[5] The analogous mediation test with symbolic threat as the dependent variable was not significant. Importantly, however, the reverse mediation path was also not significant.

diffuse negative affect; its effects were not specific to any one emotion or to any one stimulus set. Further, participants endorsed social threats for the groups that were unrelated to the content of the manipulation. Thus participants did not acquire specific threats (or specific emotions) from the manipulation itself. Instead these findings suggest a transformative psychological process—a process that turns negative images and words into perceived threat from the group. Without this psychological process there would be no particular connection between pictures of spiders, snakes, or a shark baring its teeth and perceiving threats to "traditional American culture" or "America's reputation as moral and good."

Like stereotypes (Crandall et al., 2011), threat perception can emerge after the activation of negative affect, perhaps because it provides the perceiver an acceptable justification of prejudice. Multiple threats (realistic and symbolic) emerged from the same source (from a manipulation of affect that did not differentially affect negative emotions). The same affective association activated for a single social group caused qualitatively different kinds of threat perception to emerge.

Experiment 2

Experiment 1 demonstrated that threat *can* emerge after the activation of prejudice, and documented the effect using two general classes of threat (realistic and symbolic). Experiment 2 goes one step further by examining the categories of realistic and symbolic threat with more precision. Experiment 2 measured two types of realistic threat (physical safety and economic threats) and two types of symbolic threat (threats to values and personal freedoms) as well as threat-relevant stereotype traits; these threats were chosen because they are likely to be plausible justifications for prejudice toward immigrant groups. This design provides the opportunity to

explore whether certain kinds of threat are more likely than others to emerge from conditioned prejudice.

Method

Participants

Participants were 111 female[6] undergraduates who received course credit for the experiment.

Conditioning Procedure

Procedural details. The conditioning procedure was the same as in Experiment 1, except it used a different set of negative-affect stimuli and the first two blocks were not repeated.[7] Stimulus images and words were selected from the IAPS (Lang et al., 2005) and the Affective Norms for English Words (Bradley & Lang, 1999) databases. SuperLab 4.5 was used to present stimulus materials on Lenovo ThinkCentre M Series Towers and Lenovo L1951pwD monitors with a refresh rate of 75Hz (Expts. 2 and 3).

Experimental design. The experiment used a 2 (Negative-Affect Country: Eritrea or Mauritania) x 2 (Country Rated: Eritrea, Mauritania) mixed design with repeated measures on Country Rated. Participants were randomly assigned to condition.

Cover story. The conditioning phase and the dependent measures were described as unrelated studies, to minimize awareness of the connection between them. The conditioning phase was described as a test of attention and vigilance. Next participants read about changes to immigration policy allegedly being considered by U.S. Immigration and Customs Enforcement that would ostensibly increase the number of immigrants allowed into the U.S. from the

[6] Given the absence of gender effects in Expt. 1 and in previous research on justification of prejudice (Crandall et al., 2001) and evaluative conditioning (Hofmann et al., 2010), all female samples were recruited for Expts. 2 and 3.
[7] Pre-testing determined that the second instantiation of the conditioning phase was not necessary for the creation of affective associations.

countries of Eritrea and Mauritania; the alleged purpose of the "second study" was to investigate how Americans feel about the groups.

Dependent Measures

Countries were evaluated in random order; scale items were presented in random order.

Specific threat scales. Following the conditioning procedure, participants rated each country on four specific threats adapted from Cottrell and Neuberg (2005) with the stem "I feel that Eritreans/Mauritanians, as a group, are likely to _____ to/of people like me"(1=*strongly disagree,* 7=*strongly agree*). Two items assessed *economic threat (*decrease economic opportunities available, take economic opportunities away from; r = .94). Two items assessed *threat to personal safety* (endanger the physical safety, be physically dangerous; r = .85). Two items assessed *threat to personal freedoms* (limit the personal freedoms, restrict the personal rights; r = .81). Two items assessed *threat to values* (hold values that are morally inferior to the values, possess values that directly oppose the values; r = .64).

Trait ratings. Next participants rated each country on five pairs of traits using 7-point semantic differential scales (good-bad, safe-dangerous, nonthreatening-threatening, nonviolent-violent, trustworthy-cannot be trusted; adapted from Avery, Bird, Johnstone, Sullivan, & Thalhammer, 1992).

Good-bad dimension. The good-bad dimension reflects evaluative valence without specific threat-relevant content; it was used as a manipulation check.

Threat dimension. The remaining four trait pairs comprised separate threat indices for Eritrea and Mauritania, representing endorsement of threat-relevant traits (α=.89).

Feeling thermometer. Finally participants completed the same feeling thermometer used in Experiment 1; it was used as an additional manipulation check.

Results and Discussion

Analyses are reported collapsing across the counterbalancing factor (Negative-Affect Country: Eritrea or Mauritania); there were no significant effects for this factor.

Creation of Prejudice

Ratings of the good-bad trait dimension were analyzed using an ANOVA, with repeated measures on Country Rated (Eritrea, Mauritania). The analysis revealed the predicted effect of conditioning, $F(1, 109)=5.28$, $p=.02$, $d=.24$. Participants were more likely to endorse the trait "bad" for the negative-affect country compared to the positive-affect country (see Table 2).

Analysis of the feeling thermometer ratings revealed a trend for more negative feelings to be reported for the negative-affect country compared to the positive-affect country, $F(1, 109)=3.12$, $p=.08$, $d=.23$.

Analysis of a standardized composite measure of the feeling thermometer and the good-bad trait dimension revealed the same pattern, $F(1, 109)=4.91$, $p=.03$, $d=.23$. Evaluations were significantly more negative for the negative-affect country compared to the positive-affect country; these findings suggest that the manipulation was successful in creating prejudice toward the negative-affect country.

Emergent Threat Perception

Threat-relevant traits were analyzed using an ANOVA, with repeated measures on Country Rated (Eritrea, Mauritania). The main effect of conditioning was significant, $F(1, 109)=10.18$, $p=.002$, $d=.29$.[8] When a country was associated with negative-affect stimuli, its inhabitants were rated as more threatening compared to when a country was associated with positive-affect stimuli (see Table 2).

[8] The effect remains significant after controlling for the good-bad trait dimension, indicating the manipulation's effects extend beyond mere affective valence (good-bad) to include threat-relevant content.

Ratings from the specific threat scales were analyzed with a 4x2 ANOVA, with repeated measures on Threat Type (economic, physical safety, personal freedoms, values) and Country Rated (Eritrea, Mauritania). The interaction of conditioning and threat type was not significant ($F(3, 327)=1.69$, $p=.17$); when a country was associated with negative affect, immigrants from that country were perceived to pose various kinds of threat (see Table 2). The simple effect of conditioning was significant for threat to values ($F(1, 109)=6.79$, $p=.01$, $d=.18$) and personal freedoms ($F(1, 109)=4.13$, $p=.04$, $d=.16$), marginally significant for threat to personal safety ($F(1, 109)=3.82$, $p=.05$, $d=.14$) and not significant for economic threat ($F(1, 109)=0.16$, $p=.69$, $d=.03$).

As in Experiment 1, Preacher and Hayes's (2008) bootstrapping macro was used to test the hypothesized mediation path in which the manipulation's effect on threat is mediated by prejudice (feeling thermometer ratings). The indirect effect of the conditioning manipulation on realistic threat (a composite of economic and personal safety threats) through prejudice was significant ($b = .20$, $SE = .12$, 95% confidence interval [.02, .50]). The manipulation increased prejudice, which in turn increased threat perception. By contrast, a test of the reverse mediation path in which the manipulation's effect on prejudice is mediated by threat was not significant ($b = 2.70$, $SE = 1.82$, 95% confidence interval [-.61, 6.63]). These results suggest that the most immediate effect of the conditioning procedure was to increase prejudice.

Experiment 2 replicated the finding that prejudice causes threat perception using a new negative stimulus set and new measures of threat; thus it is clear that the effects are not dependent on the content of the manipulation itself. Experiment 2 measured emergent threat perception with more precision than Experiment 1, and the pattern of results was somewhat more complex. The effects of the conditioning manipulation were strongest for threat-relevant traits

and symbolic kinds of threat perception (threats to values and personal freedoms). Economic threat did not emerge in response to prejudice.

These findings can be understood within the context of the JSM's plausibility hypothesis, which asserts that to provide adequate justification of prejudice a threat must be accepted by others as an authentic threat. In the context of this experiment, symbolic threats appear to have been more plausible justifications than realistic threats. The only information given about the group was that they are immigrants, and participants may have assumed from this label alone that the group has different customs and values. Although immigrants are also sometimes perceived to pose economic threats to native-born citizens, perhaps participants felt that additional information would be needed to substantiate such a claim. Realistic threat did emerge from conditioned prejudice in Expt. 1, thus it is unclear whether the absence of an effect for economic threat in Expt. 2 was due to the implausibility of economic threat in this context or to measurement error. Future studies should directly test the plausibility of threats.

Conditioned prejudice caused increased threat perception of various kinds. Participants endorsed specific threats and threat-relevant traits for the prejudiced-against group, and these threats originated from a common source—newly created prejudice. One implication of these findings is that the same group may be perceived to pose different threats in different contexts. ITT and the sociofunctional approach claim that threats cause prejudice. Instead, correlations between specific threats and specific prejudices might be more accurately described as different justifications generated for different social groups. Conditioned prejudice can cause threats to emerge in the absence of threat-related information about the groups. Because justifications are applied after the activation of prejudice, they can be tailored to meet the social situation of the target, rather than forming the source of the prejudice itself.

Experiment 3

Perceived threats can emerge from prejudice (Expt. 1 & 2), but does the emergent threat serve a justification function? In order for threat to serve as justification of prejudice it must be *plausible* (Crandall & Eshleman, 2003); therefore if emergent threat perceptions are justifications they should be eliminated when the plausibility of threat is undermined. Experiment 3 creates a situation in which threat is implausible, making it a poor justification of prejudice.

Plausibility of a threat can be affected by the perceiver's goals or the information available about the prejudiced-against group. Outside of the laboratory, people are confronted with a variety of affectively and cognitively based messages about groups from different sources, and some of these may be conflicting. It should be difficult to maintain the plausibility of a threat in the face of contradictory information. Threat may sometimes be unavailable as justification, such as when there is direct information that the group is nonthreatening.

In Experiment 3 plausibility of threat was manipulated by providing diagnostic information about threat that was either consistent or inconsistent with the group's conditioned affect. In the threat-plausible condition, no information about threat was provided for the prejudiced-against group, leaving threat available as justification of prejudice. In the threat-implausible condition, the prejudiced-against group was described as nonthreatening, making threat an unlikely justification. With this design, one can discover whether the threat perception that emerges from conditioned prejudice serves a justification function.

Threat perception should emerge when conditioned affect and threat-based information are consistent (in the threat-plausible condition); by contrast, threat perception should be inhibited when conditioned affect and threat-based information are inconsistent (in the threat-implausible condition).

Method

Participants

Participants were 119 female undergraduates who received course credit for participating. One participant was excluded due to a response pattern that implied lack of attention.

Pre-testing of Target Countries

A separate sample (*N*=30) rated 32 countries on affect and familiarity. A feeling thermometer (0=*very positive*, 100=*very negative*) assessed affect toward each country. Guyana and Suriname were chosen as the target countries[9] because they received mean ratings at the midpoint of the scale (Guyana *M*=50.00, *SD*=7.88, Suriname *M*=50.00, *SD*=11.74). The same two countries were rated as unfamiliar, using the rating scale used in the pre-test for Expt. 1 (Guyana *M*=0.37, *SD*=0.74, Suriname *M* =0.48, *SD*=0.80; the mean difference was not significant, *d*=.14).

Pilot Testing the Threat Plausibility Manipulation

A separate sample (*N*=20) was randomly assigned to read one of two news articles (adapted from Stephan et al., 2005) about a plan proposed by the Immigration and Naturalization Service in which 20,000 people from one of the target countries would be allowed to immigrate to the U.S.; no explicit information about threat was given for this country. The article also referenced the recent immigration of people from the other target country and explicitly described the group as nonthreatening (nonviolent, law-abiding, holding low wage jobs, not a tax burden). The group described as nonthreatening was varied between participants.

After reading the article, participants rated each group using the same threat-relevant trait measure used in Experiment 2. The group described as nonthreatening (*M*=2.71, *SD*=1.00) was

[9] New target countries were selected to ensure that the effects were not specific to any one pair of target countries.

rated as less threatening compared to the group for which no threat-related information was given (M=3.39, SD=1.39), F(1, 18)=8.61, p=.009, d=.56.

Procedure

Manipulations of affect and threat. The conditioning procedure was the same as in Experiment 2, except that it used the target groups Guyana and Suriname. The manipulation of threat plausibility was presented in the same way as in the pilot test.

Experimental design. The experiment used a 2 (Negative-Affect Country: Guyana or Suriname) x 2 (Nonthreatening Country: Guyana or Suriname) x 2 (Order of Manipulations: affect or threat first) x 2 (Country Rated: Guyana, Suriname) mixed design with repeated measures on Country Rated. After collapsing across the counterbalancing factors, only two conceptually different conditions remained: a *threat-plausible condition* in which no threat-based information was given for the negative-affect country and the positive-affect country was portrayed as nonthreatening, and a *threat-implausible condition* in which the negative-affect country was portrayed as nonthreatening and no threat-based information was given for the positive-affect country. Thus the threat perception that may emerge in response to conditioned prejudice either remained plausible (in the threat-plausible condition) or was contested (in the threat-implausible condition).

Cover story. The affect and threat manipulations were described as separate studies and the order was varied between subjects. Participants were told the purpose of the studies was to test attention and vigilance (affect manipulation) and to assess the fairness and objectivity of media reports on immigration issues (threat manipulation). Participants completed five items about the article in order to uphold the cover story (e.g., “In your opinion, was the article you read objective in its coverage of the issue?”)

Dependent Measures

The dependent measures were administered after the affect and threat manipulations. Scale order was varied between subjects so that order of the manipulations and order of the dependent measures (feeling thermometer or traits first) was counterbalanced.

Feeling thermometer and trait ratings. Participants rated the target groups in random order using the feeling thermometer and threat-relevant trait measures (α =.86) used in Experiment 2 and a new measure of negative stereotype traits that are not related to threat.

***Negative stereotypes*.** Participants rated each group on 10 pairs of negative stereotype trait adjectives using 7-point semantic differential scales (friendly-unfriendly, sincere-insincere, warm-cold, honest-dishonest, generous-selfish, good-bad, humble-arrogant, considerate-inconsiderate, patient-impatient, intelligent-unintelligent; α =.91). Separate indices were computed for Guyana and Suriname, with higher numbers representing greater endorsement of negative stereotypes.

Results and Discussion

Preliminary analyses included the order of manipulations as a between-subjects factor. There were no significant effects; therefore order was excluded from all analyses.

Each dependent measure was analyzed with a 2x2x2 mixed model ANOVA. The between-subjects factors were Negative-Affect Country (Guyana or Suriname) and Nonthreatening Country (Guyana or Suriname). The within-subjects factor was Country Rated (Guyana, Suriname). The critical test of the plausibility hypothesis is what happens when threat and affect are inconsistent—how is a group rated when it's associated with negative affect and described as nonthreatening? Planned comparisons were used to test this hypothesis by

comparing ratings of the negative-affect country in the threat-plausible and threat-implausible conditions.

Threat Perception

Analysis of threat-relevant trait ratings determined there was a significant interaction of the affect and threat manipulations, $F(1, 114)=24.31$, $p<.0005$, $d=.92$. Follow-up tests revealed a different pattern of results in the threat-plausible and threat-implausible conditions (Fig. 1a), indicating that consistency of affect and threat-based information is necessary for threat to emerge as justification of prejudice. Conditioned prejudice significantly increased endorsement of threat-relevant traits in the threat-plausible condition, $F(1, 58)=14.26$, $p<.0005$, $d=.56$, and significantly decreased endorsement of threat-relevant traits in the threat-implausible condition, $F(1, 56)=10.40$, $p=.002$, $d=.41$.

The negative-affect country was rated as *more* threatening than the positive-affect country when no threat-related information was available for that country; by contrast, the negative-affect country was rated as *less* threatening than the positive-affect country when it was explicitly described as nonthreatening (see Table 3). The planned comparison showed that the threat plausibility manipulation significantly decreased threat perception for the negative-affect country, $t(116)=2.76$, $p=.01$. As predicted, threat perception emerged as justification of prejudice but only when there was no threat-based information available for that group. Threat perception was particularly unlikely when the prejudiced-against group was described as nonthreatening.

Negative Stereotypes

Analysis of negative stereotype trait ratings determined there was a significant interaction of the affect and threat manipulations, $F(1, 114)=15.71$, $p<.0005$, $d=.73$. Follow-up tests

revealed a different pattern of results in the threat-plausible and threat-implausible conditions (Fig. 1b).

In the threat-plausible condition, conditioned prejudice significantly increased endorsement of negative stereotype traits, $F(1, 58)=16.92$, $p<.0005$, $d=.46$. Participants endorsed negative stereotypes more for the negative-affect country than for the positive-affect country when no threat-related information was available for that country. These results are consistent with previous research showing that stereotypes can emerge as justifications for prejudice (Crandall et al., 2011). When affect and threat information were consistent with each other, negative stereotypes—like threat—emerged as a result of conditioned prejudice.

In the threat-implausible condition, by contrast, participants' endorsement of negative stereotypes was not significantly affected by the manipulation of affect, $F(1, 56)=2.55$, $p=.12$, $d=.19$. Importantly, however, the planned comparison showed that the simple effect of the threat plausibility manipulation was not significant for the negative-affect country, $t(116)=1.11$, $p=.27$. Negative stereotype endorsement was *just as high* for the negative-affect country when it was described as nonthreatening as when no threat-related information was available for that country (see Table 3). Despite the group's positive portrayal, negative stereotype endorsement for the prejudiced-against country was unaffected.

Feeling Thermometer

Analysis of feeling thermometer ratings determined the interaction of the affect and threat manipulations was significant, $F(1, 114)=9.52$, $p=.003$, $d=.57$. Follow-up tests revealed a similar pattern as for negative stereotypes. Conditioned prejudice significantly decreased liking in the threat-plausible condition, $F(1, 58)=14.24$, $p<.0005$, $d=.34$, but had no effect in the threat-implausible condition, $F(1, 56)=1.03$, $p=.31$, $d=.13$. Importantly, the planned comparison

showed that the simple effect of the threat plausibility manipulation was not significant for the negative-affect country, $t(116)=0.90$, $p=.37$. The negative-affect country was evaluated just as negatively when it was described as nonthreatening as when no threat-related information was available (see Table 3).

Findings from Experiment 3 support the hypothesis that threat must be plausible to emerge as justification of prejudice. When no information about threat was available for the group associated with negative affect, participants perceived that the group was dangerous, violent, untrustworthy, and threatening; threat perception remained plausible as a justification. When the plausibility of a justification was undermined with information about threat that was inconsistent with conditioned prejudice, participants did not develop the perception of threat. They did, however, report negative evaluations of the group in areas not directly related to threat.

The within-subjects comparisons of the conditioning procedure's effects on negative stereotype endorsement and liking were not statistically significant in the threat-implausible condition, probably because group evaluations were pushed in one direction by conditioned affect and pulled in the opposite direction by information about threat. One could reasonably expect that the relatively subtle effect of the conditioning manipulation would be attenuated somewhat by an explicitly positive portrayal of the negative-affect country. Nevertheless, participants endorsed negative stereotypes and reported having negative feelings about the prejudiced-against group just as much when it was described as nonthreatening as when no information about threat was available for that group. Even when affect and threat information were conflicting, negative stereotype endorsement and affective evaluations revealed a tempered, yet still present effect of conditioned prejudice.

Both prejudice and information about threat were experimentally introduced in Experiment 3, providing the opportunity to simultaneously test whether prejudice causes threat and whether threat causes prejudice. If threat is primarily a source of prejudice, then evaluations should have been uniformly more positive when a country was described as nonthreatening compared to when no information about threat was available. This was true only for threat-relevant traits. Negative stereotypes and liking were unaffected by the threat plausibility manipulation. Conditioned prejudice caused perception of threat when threat remained plausible as justification, but this effect was eliminated when threat was no longer plausible. This suggests that in this experiment, threat perception and other kinds of evaluative judgments functioned as justifications rather than causes of prejudice. When affective and cognitive messages were in conflict, group evaluations were primarily shaped by conditioned affect except in the one limited domain for which directly diagnostic information was available.

General Discussion

Across three experiments I created new prejudices—negative affective associations with unfamiliar social groups—and found that perceived threat emerged as a result. Specific threats emerged to justify conditioned prejudice, but only when threat perception remained plausible. When threat-based information about the group was inconsistent with conditioned affect making threat an implausible justification of prejudice, participants did not develop the perception of threat.

All three experiments used affective conditioning methods, but the exact procedures differed somewhat across experiments. This ensured that the effects were not contingent on the particular stimulus set used to create the affective association, the measurement of threat, or the target countries used. Despite the procedural differences, there was a consistent pattern of

results: When a country was associated with negative affect (and no threat-related information was available to contest the threat perception), its inhabitants were perceived to be more threatening. These findings support the hypothesis that prejudice can cause threat. The conditioning effect was subtle (mean *d*=.24) but statistically reliable, and comparable in size to the effects reported by Olson and Fazio (2001) and Crandall et al. (2011) using similar methods.

Threat as Justification of Prejudice

All three experiments found that prejudice can cause threat perception and helped to clarify some of the criteria that must be met in order for threat to emerge as a consequence of prejudice. A compelling explanation for these findings is offered by the JSM (Crandall & Eshleman, 2003)—threat provides perceivers a plausible justification of prejudice. Social norms dictate that prejudice is unacceptable; the psychological discomfort aroused by the activation of prejudice can be assuaged by constructing an acceptable justification. The JSM contends that intergroup threat is a possible justification, but the idea had not previously been experimentally tested. Previous research has shown that stereotypes can fulfill this role (Crandall et al., 2011; McGarty, Yzerbyt, & Spears, 2002).

Might the results be explained by processes other than justification? A potential explanation for the findings is the broader set of psychological theories that emphasize the need for cognitive consistency (e.g., Festinger, 1957; Heider, 1958). Just as attitudes can shift to explain past behavior, threat perception can be socially constructed as a means of understanding the social world. But cognitive consistency motives cannot explain why in Experiment 2 some kinds of threat were more likely to emerge than others. To account for these results, a theory must be able to explain why perceivers are sensitive to the plausibility of the threats. The JSM suggests that beyond general consistency motives, perceivers tailor justifications to meet the

social situation of the target because of the desire to maintain an unprejudiced self-image. The specificity of emergent threat perceptions observed in the current experiments fits well with this account.

Findings from Experiment 3 suggest that for threat to be a plausible justification, affective and threat-based messages about the group must be consistent. Conditioned prejudice increased endorsement of threat-relevant traits, but only when no threat information was available for the group. When threat perception was contested by affect-inconsistent information about threat, threat could no longer satisfy the requirement of plausibility.

Explicit information that a group is nonthreatening suppressed endorsement of threat-relevant traits, but had little effect on negative stereotypes that were not related to threat. Groups associated with negative affect were negatively stereotyped and disliked—even when the group was believed to be nonthreatening. This suggests that contesting specific beliefs about a group is unlikely to be effective in reducing prejudice. It is simply too easy for perceivers to find an alternate justification that allows them to maintain their prejudice. Instead, targeting feelings by associating a group with positive affect may be more successful.

Threat: Cause or Consequence of Prejudice?

ITT (Stephan & Stephan, 2000; Stephan & Renfro, 2002) and the sociofunctional approach to prejudice (Cottrell & Neuberg, 2005; Neuberg & Cottrell, 2002) hypothesize that threat causes prejudice. While there is evidence to support this hypothesis, the current experiments provide new evidence that prejudice can cause threat. Therefore, an important contribution of the current research is in recognizing that any correlational evidence cited in support of these theories (e.g., Cottrell & Neuberg, 2005; Cottrell et al., 2010; Stephan et al.,

1999) is consistent with both directional paths—threat can cause prejudice and prejudice can cause threat—and thus does not uniquely support ITT or the sociofunctional approach.

Clearly, causal pathways among the affective and cognitive processes involved in prejudice may work in both directions. Rather than searching for simple cause and effect relationships among variables, a bidirectional view considers the affective and cognitive processes involved in prejudice as part of a complex, interdependent system (Stephan & Stephan, 1993). Threat can be both a *cause* and a *consequence* of prejudice. Recognizing both directional paths can advance theory by helping to clarify when prejudice forms in relation to threat.

In this research prejudice is operationalized as negative affect associated with a social group. However there are several theories of prejudice that make different predictions depending on the specific emotion experienced in the intergroup context (Cottrell & Neuberg, 2005; Fiske et al., 2002; Mackie et al., 2000). Whether specific intergroup emotions can cause qualitatively different threat perceptions to emerge remains an open empirical question.

Conclusions

Prejudice can cause threat and threat can cause prejudice, yet people's evaluations of other groups are greatly influenced by the feelings experienced in intergroup contexts. If negative feelings for a group already exist, beliefs that the group is threatening are likely to follow. Threats are not necessarily inherent to the characteristics of the group; threat perception can be used as a way to explain the experience of prejudice, rather than forming the source of the prejudice itself.

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Table 1

Descriptive Statistics by Condition, Experiment 1

	Negative Affect		Positive Affect		
	M	*SD*	*M*	*SD*	*d*
Creation of Prejudice					
Feeling Thermometer	47.41	19.00	43.95	18.31	.19*
Disgust	1.40	0.90	1.17	0.44	.32**
Anger	1.46	0.93	1.28	0.71	.22*
Fear	1.44	0.86	1.28	0.65	.21*
Emergent Threats					
Symbolic Threat	3.01	1.23	2.75	1.32	.21*
Realistic Threat	2.98	1.42	2.75	1.33	.17*

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

Table 2

Descriptive Statistics by Condition, Experiment 2

	Negative Affect		Positive Affect		
	M	*SD*	*M*	*SD*	*d*
Creation of Prejudice					
"Bad" Trait Endorsement	3.44	1.02	3.17	1.19	.24*
Feeling Thermometer	39.35	17.64	36.48	16.71	.23
Negativity Index	0.10	0.92	-0.10	0.83	.23*
Emergent Threats					
"Threat" Stereotype Traits	3.65	1.14	3.34	0.98	.29**
Values	2.56	1.33	2.33	1.16	.18*
Personal Freedoms	2.39	1.46	2.17	1.23	.16*
Personal Safety	2.52	1.56	2.31	1.35	.14
Economic	2.75	1.63	2.71	1.42	.03

Note. Negativity index is the standardized composite measure of feeling thermometer ratings and "bad" stereotype trait endorsement.

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

Table 3

Descriptive Statistics by Condition, Experiment 3

	Affect Manipulation				
	Negative Affect		Positive Affect		
	M	*SD*	*M*	*SD*	*d*
	Threat Manipulation—Threat-Plausible				
	No Information		Nonthreatening		
Threat Perception	3.51	1.18	2.85	1.20	.56***
Negative Stereotypes	3.39	0.79	3.01	0.86	.46***
Feeling Thermometer	34.15	18.88	28.03	17.01	.34***
	Threat Manipulation—Threat-Implausible				
	Nonthreatening		No Information		
Threat Perception	2.97	0.98	3.39	1.10	.41**
Negative Stereotypes	3.23	0.81	3.39	0.84	.19
Feeling Thermometer	31.23	18.09	33.44	15.93	.13

*p<.05, **p<.01, ***p<.001.

Figures 1a and 1b

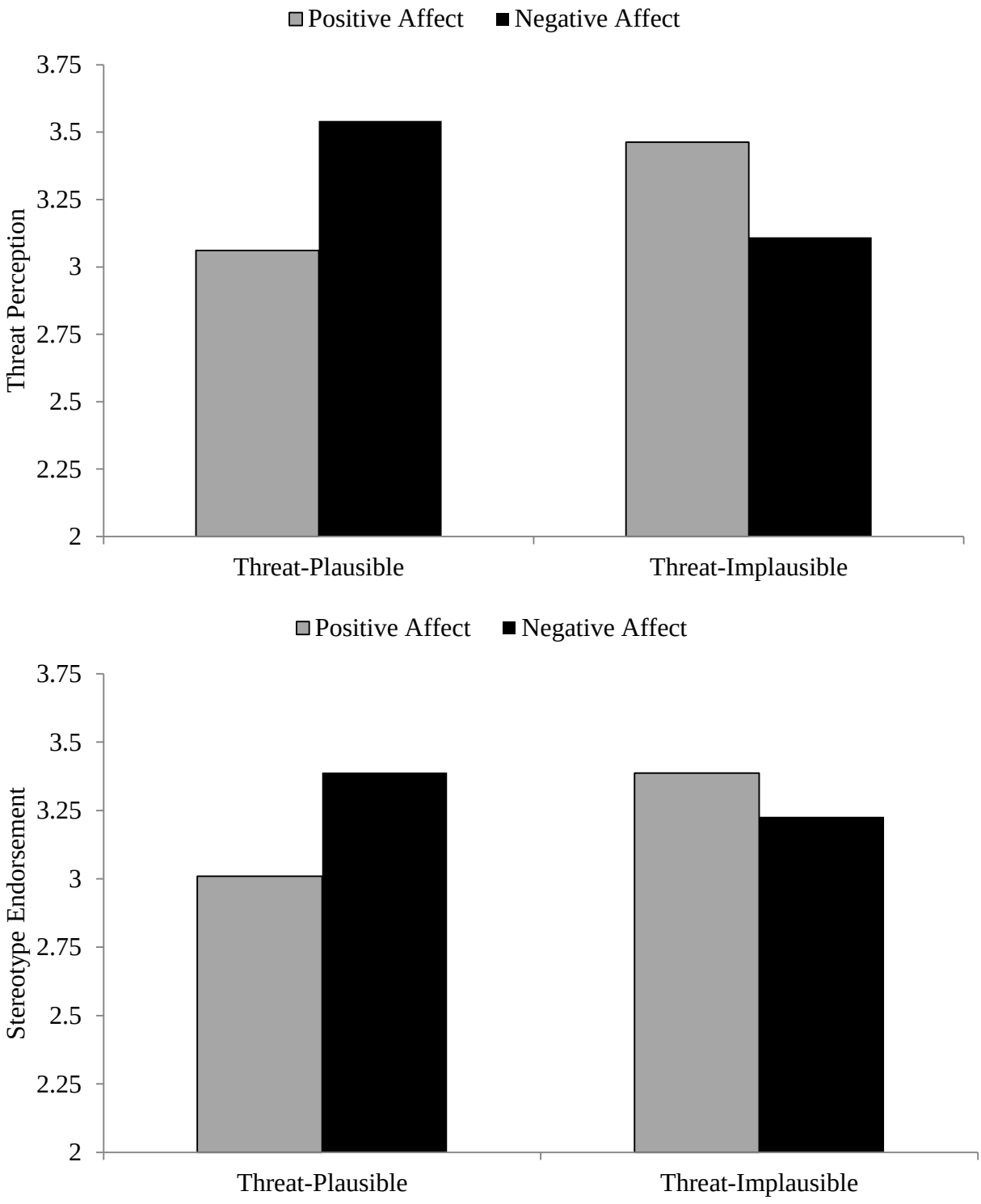

Figure Caption

Figures 1a and 1b. *Threat emerges as justification of conditioned prejudice when perceived threat is plausible but not when perceived threat is implausible (Fig. 1a). Negative stereotype endorsement for the negative-affect country is unaffected by the threat plausibility manipulation (Fig. 1b).*