Different Emotional Reactions to Different Groups: A Sociofunctional Threat-Based Approach to "Prejudice"

Catherine A. Cottrell and Steven L. Neuberg
Arizona State University

The authors suggest that the traditional conception of prejudice—as a general attitude or evaluation—can problematically obscure the rich texturing of emotions that people feel toward different groups. Derived from a sociofunctional approach, the authors predicted that groups believed to pose qualitatively distinct threats to in-group resources or processes would evoke qualitatively distinct and functionally relevant emotional reactions. Participants' reactions to a range of social groups provided a data set unique in the scope of emotional reactions and threat beliefs explored. As predicted, different groups elicited different profiles of emotion and threat reactions, and this diversity was often masked by general measures of prejudice and threat. Moreover, threat and emotion profiles were associated with one another in the manner predicted: Specific classes of threat were linked to specific, functionally relevant emotions, and groups similar in the threat profiles they elicited were also similar in the emotion profiles they elicited.

Keywords: intergroup relations, prejudice, discrete emotions, threats, functional approach, evolution

Jews are shrewd, religious, and wealthy. African Americans are noisy, athletic, and "have an attitude." Italians are loyal to family, loud, and tradition loving. And the Irish are talkative, happy-go-lucky, and quick tempered. These stereotypes, recently endorsed by American college students (Madon et al., 2001), straightforwardly demonstrate that people hold different beliefs about different groups. Researchers have long recognized this and have been documenting since the 1930s the diversity of stereotypes used to describe different groups (e.g., Devine & Elliot, 1995; Gilbert, 1951; Karlins, Coffman, & Walters, 1969; Katz & Braly, 1933; Niemann, Jennings, Rozelle, Baxter, & Sullivan, 1994).

Researchers have seemingly been less interested, however, in the diversity of people's feelings toward different groups. Although Allport (1954) noted that negative prejudice can include specific "feelings of scorn or dislike, of fear or aversion" (p. 7), his own theorizing focused more on his macroscopic characterization of negative prejudice as an unfavorable feeling toward a group and its members. This latter conceptualization of prejudice, as a general attitude or evaluation, has long dominated the research literature and has been the focus of most theoretical and empirical approaches designed to explicate the origins, operations, and implications of intergroup feelings (for a review, see Brewer & Brown, 1998). As useful as this global view of prejudice has been, we believe there is great value in contemplating seriously Allport's more textured observation—that just as people may hold qualitatively distinct beliefs about different groups, they may feel qualitatively distinct emotions toward different groups.

A small set of researchers has begun to explore this possibility (e.g., Brewer & Alexander, 2002; Dijker, 1987; Esses, Haddock, & Zanna, 1993; Fiske, Cuddy, Glick, & Xu, 2002; Mackie, Devos, & Smith, 2000); we review their approaches below. Our own belief in the importance of understanding the textured emotional reactions people have toward members of other groups emerges as an implication of a broader "sociofunctional" approach we have been developing to better account for a range of intragroup and intergroup phenomena (e.g., Neuberg, Smith, & Asher, 2000).[1]

To anticipate our argument, we suggest that the specific feelings people have toward members of other groups should depend on the specific tangible threats they see these other groups as posing: From qualitatively different threats should emerge qualitatively different, and functionally relevant, emotions. From this perspective, the concept of prejudice as general attitude is inherently problematic: Because the traditional prejudice construct aggre-

We offer special thanks to Terrilee Asher and the members of the Friday afternoon research seminar for their contributions to the early development of these ideas, and to Eliot Smith, Jon Maner, Aaron Taylor, and Amy Cuddy for their helpful suggestions and comments on previous versions of this article.

Correspondence concerning this article should be addressed to Catherine A. Cottrell or Steven L. Neuberg, Department of Psychology, Arizona State University, Tempe, AZ 85287-1104. E-mail: catherine.cottrell@asu.edu or steven.neuberg@asu.edu

[1] In previous writings and presentations (Cottrell & Neuberg, 2003; Neuberg & Cottrell, 2002) we have described this framework as *biocultural*. We have changed our labeling of these ideas to *sociofunctional* to better capture our focus on the functional psychological mechanisms that promote effective and successful social living. Note that this is merely a change in label and not in the content of our approach.

Journal of Personality and Social Psychology, 2005, Vol. 88, No. 5, 770–789
Copyright 2005 by the American Psychological Association 0022-3514/05/$12.00 DOI: 10.1037/0022-3514.88.5.770

gates across qualitatively different emotional reactions (e.g., anger, fear, disgust, pity, admiration, guilt)—each with its often distinct eliciting conditions, phenomenologies, facial expressions, neurologic structures, physiological patterns, and correlated behavioral propensities—it may obscure the rich texturing of emotional reactions people have toward different groups. Consequently, an exclusive focus on this traditional conceptualization of prejudice is likely to hinder the development of effective theory and practical intervention.

A Sociofunctional Approach

By their nature, people are group-living animals. According to many anthropologists, environmental challenges present in our evolutionary past propelled ancestral humans toward life in highly interdependent and cooperative groups (e.g., Leakey & Lewin, 1977). This "ultrasociality" (Campbell, 1982), "hypersociality" (Richerson & Boyd, 1995), or "obligatory interdependence" (Brewer, 2001) likely evolved as a means to maximize individual success: An individual was presumably able to gain more essential resources (e.g., food, water, shelter, mates) and achieve more important goals (e.g., child rearing, self-protection) by living and working with other individuals in the context of a group compared with living and working by oneself. Interdependent group living, then, can be seen as an adaptation—perhaps the most important adaptation (Barchas, 1986; Brewer, 1997; Brewer & Caporael, 1990; Leakey, 1978)—"designed" to protect the human individual from the environment's many dangers while also supporting the effective exploitation of the environment's many opportunities.[2]

Group life has its costs, however (e.g., R. D. Alexander, 1974; Dunbar, 1988). For instance, group living surrounds one with individuals able to physically harm fellow group members, to spread contagious disease, or to "free ride" on their efforts. A commitment to sociality thus carries a risk: If threats such as these are left unchecked, the costs of sociality will quickly exceed its benefits. Thus, to maximize the returns on group living, individual group members should be attuned to others' features or behaviors that characterize them as potential threats.

We note two distinct levels at which group members may threaten each other. The benefits of group living depend not merely on the presence of others but on the effective coordination of these individuals into a well-functioning group. Individual group members should thus be attuned not only to those features and behaviors of others that heuristically characterize them as direct threats to one's personal success but also to those features and behaviors of others that heuristically characterize them as threats to group success, which are our focus here. This latter sensitivity to group-directed threats should be especially acute for those highly invested in, and dependent on, their groups.

What events signal to individuals that the functioning of their group may be compromised? Because groups enhance individual success by providing members with valuable resources, members should be attuned to potential threats to group-level resources such as territory, physical security, property, economic standing, and the like. They should also be attuned to those group structures and processes that support the group's operational integrity—to those structures and processes that encourage effective and efficient group operations. Effective groups tend to possess strong norms of reciprocity, trust among members, systems of effective communication, authority structures for organizing individual effort and distributing group resources, common values, mechanisms for effectively educating and socializing members, members with strong in-group social identities, and the like (e.g., Brown, 1991). Individual group members should thus be especially attuned to potential threats to reciprocity (because others are either unwilling or unable to reciprocate), trust, value systems, socialization processes, authority structures, and so on (Neuberg et al., 2000). Finally, mere attunement to threats cannot be enough: Vigilance must be accompanied by psychological responses that function to minimize—or even eliminate—recognized threats and their detrimental effects.

In sum, the sociofunctional approach is based on three simple, but fundamental, propositions: (a) Humans evolved as highly interdependent social beings; (b) effectively functioning groups tend to possess particular social structures and processes; and (c) individuals possess psychological mechanisms "designed" by biological and cultural evolution to take advantage of the opportunities provided by group living and to protect themselves from threats to group living. Ongoing research has used this approach to successfully predict the traits people most value for members of different social groups and the impressions of themselves they most want to present to others, to generate hypotheses regarding the nature of gossip and other forms of communicated social information, and to motivate explorations of similarities in formal systems of social control across religious and criminal justice systems (e.g., Cottrell & Neuberg, 2004; Cottrell, Neuberg, & Li, 2003; Neuberg & Story, 2003). Here we use the sociofunctional approach, in conjunction with theory and empirical findings on the goal-relevance of discrete emotions, to generate specific predictions about the threat-driven nature of intergroup affect.

The Goal Relevance of Discrete Emotions

Emotions are critical to the natural goal-seeking process. They signal the presence of circumstances that threaten or profit important goals (e.g., Carver & Scheier, 1990; Ekman & Davidson, 1994; Higgins, 1987; Simon, 1967) and direct and energize behavior toward the remediation of such threats or the exploitation of such benefits (e.g., Cosmides & Tooby, 2000; Ekman, 1999; Nesse, 1990; Plutchik, 1980, 2003; Tooby & Cosmides, 1990). Emotions organize and coordinate ongoing psychological action (e.g., attention, motivation, memory, behavioral inclinations) so that people might respond more effectively to events related to individual survival and success.

---

[2] We are not suggesting that human sociality emerged because it benefits the survival of the group (i.e., a group selection process; see Sober & Wilson, 1998; Wilson & Sober, 1994), but rather because it benefits the overall fitness of the individual. Moreover, our evolution-based arguments should not be interpreted as deterministic (nor, for that matter, should any evolution-based argument); the social processes we propose to understand intergroup affect are far from invariable and inevitable. Indeed, these processes, once explicated, lend themselves nicely to effective practical interventions to reduce the maltreatment of groups and people around the globe (for further discussion, see Schaller & Neuberg, 2004). Finally, just because we believe that an evolution-inspired analysis shines light on certain unique complexities of intergroup affect does not in any way imply that the psychological processes and outcomes revealed by our analysis are morally, ethically, or legally justifiable.

There is a functional specificity to the emotional system: Different events evoke different emotions. A shadowy figure quickly emerging from a dark alley—a problem related to personal security—elicits fear, whereas the theft of one's car—a problem related to personal resources—elicits anger. Moreover, distinct emotions are affiliated with specific physiological, cognitive, and behavioral tendencies, all of which operate to facilitate resolution of the problem. For example, the fear felt toward the unfamiliar figure triggers psychological and physical activity aimed at promoting escape from the potentially threatening situation, whereas the anger felt toward the property thief triggers activity aimed at promoting retrieval of the lost goods.

Emotions researchers have theorized about the perceived stimulus event classes that elicit qualitatively distinct emotions and action tendencies (e.g., Ekman & Friesen, 1975; Frijda, 1986; Izard, 1991; Lazarus, 1991; Nesse, 1990; Plutchik, 1980) and have arrived at some consensus. Table 1 highlights the links among perceived stimulus event classes, discrete emotions, action tendencies, and resulting functional outcomes for an illustrative set of emotions. For example, perceiving the obstruction of valuable goals or the taking of valuable resources produces anger and a tendency to aggress, perceiving physical or moral contamination produces disgust and a tendency to expel the contaminated object or idea, and perceiving a threat to physical safety produces fear and a tendency to flee. These first three emotions—anger, disgust, and fear—are often considered basic emotions, shaped by natural selection to automatically address recurrent survival-related problems (Ekman, 1999).

Pity, envy, and guilt, on the other hand, involve more complex cognitive appraisals of social situations. These emotional reactions nonetheless progress the individual toward important adaptive outcomes. Pity (as part of the sympathy family of emotions) is hypothesized to be an important emotional response involved in the regulation of the human altruistic system (Trivers, 1971), because it may motivate prosocial behavior toward others who are temporarily disadvantaged for reasons beyond their control, thereby generating gratitude from the recipient and subsequent reciprocity of the assistance back to the helper in the future. Envy results from feelings of being deprived of valuable resources possessed by another and produces a tendency to obtain the desired objects (Lazarus, 1991; Parrott, 1991), thereby encouraging individuals to pursue limited important resources. Guilt is produced by the belief that one has engaged in a moral transgression that has harmed another (especially a perceived in-group member) and elicits an inclination toward reconciliatory behavior (Lazarus, 1991). Like pity, guilt may also be important to the maintenance of reciprocal relations: Guilt may motivate the wrongdoer to compensate for the harm caused and to follow appropriate rules of reciprocal exchange in the future (Trivers, 1971).

From Group-Relevant Threats to Discrete Emotions

The more basic, "lower brain" emotions did not evolve for the purpose of helping humans manage the threats and opportunities of sociality. Although one must be wary of attributing emotional states to other animals, fear, anger, and disgust, for example, appear to exist in creatures with an evolutionary history much longer than humans' and in species that are barely social (e.g., Izard, 1978; Öhman, 1993; Rozin, Haidt, & McCauley, 1993). Evolution, however, often exploits existing adaptations for other purposes. For example, the infant attachment system may have been co-opted by natural selection to encourage romantic attachment between mates and thus enhance the survival and success of offspring (Shaver, Hazan, & Bradshaw, 1988). Because humans have long been ultrasocial, these valuable emotion-based psychological mechanisms likely became used by natural selection for the additional purpose of helping people protect valuable group resources and maintain the integrity of critical social structures and processes. Just as the theft of an individual's property will evoke anger, so too should the theft of a group's property—particularly among those group members highly invested in and dependent on the group.

Other emotions, in contrast, may have indeed evolved to help social animals manage the complexities of the repeated, relatively stable interdependence that characterizes social life. For instance, unlike fear, anger, and disgust, the emotions of pity, guilt, empathy, embarrassment, and shame are inherently social and have as cognitive antecedents relatively complex appraisals that explicitly

Table 1
An Evolutionary Approach to Emotions

Perceived stimulus event classes	Discrete emotion	Action tendency	Adaptive outcome
Obstacles and barriers to desired outcomes	Anger	Aggression	Destruction/removal of obstacle; reacquisition of desired outcome
Contamination by unpalatable object or idea	Disgust	Active avoidance or rejection of object or idea	Removal of repulsive stimulus
Immediate threat to physical safety	Fear	Escape	Safety
Other distressed because of uncontrollable conditions	Pity	Prosocial behavior	Remediation of other's distress; creation of obligation in a potential ally
Other possesses desired object or opportunity that the perceiver lacks	Envy	Attempt to seize desired resources from other	Pursuit of limited valuable resources
Other distressed because of actions of the perceiver	Guilt	Reconciliatory behavior	Restoration of relationship with victimized individual; restoration of self-concept as moral person

Note. Illustrative examples of stimulus event classes and their associated emotional reactions, behavioral reactions, and adaptive outcomes as distilled from the work of Plutchik, Nesse, Ekman, Lazarus, Frijda, and others. From *From Prejudice to Intergroup Relations: Differentiated Reactions to Social Groups* (p. 270), by D. M. Mackie & E. R. Smith (Eds.), 2002. New York: Psychology Press. Copyright 2002 by Psychology Press. Adapted with permission.

involve actual, imagined, or implied others (e.g., Lewis, 1993). Although these emotions likely evolved in the service of managing dyadic social relations, they too may have been easily exploited by natural selection for the additional purpose of managing group and intergroup relations.

Because human sociality developed to help individuals gain important tangible resources (e.g., food, shelter, mates), we expect individuals to be most attuned to threats to in-group success when there are tangible outcomes at stake. These emotion-based psychological systems should therefore operate most powerfully within interactions between groups perceived to be mutually interdependent, that is, cooperating or competing to obtain valued tangible outcomes (e.g., as in interactions between White and Black Americans). These threat–emotion systems may operate less prominently within interactions between groups defined primarily by divergent identities alone (e.g., interactions between Honda and Toyota owners).

Integrating, then, the emotions research summarized in Table 1 and our understanding of the fundamental structures and processes underlying effective group operation, we have generated explicit predictions regarding the links between specific threats to the effective functioning of groups (and the more general classes of threat they represent) and the specific emotions they evoke; we present the predictions emerging from this threat-based appraisal framework in Table 2.

Anger is elicited when people confront obstacles and barriers to their desired outcomes, suggesting that intergroup anger is likely to occur when an out-group is seen to gain in-group economic resources (e.g., jobs), seize or damage in-group physical property (e.g., homes), diminish the freedoms and rights provided to in-group members, choose not to fulfill reciprocal relations with the in-group, interfere with established in-group norms and social coordination, or betray the in-group's trust. As indicated in Table 2, this anger may then spur individuals to engage in functionally appropriate aggressive behaviors aimed at removing the specific perceived obstacle. Moreover, because all intergroup threats, in the most basic sense, obstruct a desired outcome (e.g., physical safety, good health, rewarding reciprocal relations), we hypothesize that anger may be a secondary emotional reaction to an out-group perceived to carry a contagious physical illness, promote values opposing those of the in-group, endanger the in-group's physical safety, neglect a reciprocity-based relationship because of inability, or threaten the in-group's moral standing. Whether immediate or subsequent, then, we suggest that anger will accompany nearly all perceptions of out-group threat (Neuberg & Cottrell, 2002).

Disgust is elicited when people encounter a physical or moral contaminant, suggesting that intergroup disgust is likely to occur when an out-group is thought to carry a contagious and harmful physical illness or when an out-group promotes values and ideals that oppose those of the in-group. This disgust may then motivate qualitatively distinct actions aimed at minimizing the physical or moral contamination. Because threats to personal freedoms and reciprocity relations (by choice) imply that an out-group may promote values that oppose those of the in-group, we hypothesize that disgust may be a secondary emotional reaction to an out-group seen to intentionally limit the in-group's personal freedoms or violate the rules of reciprocal exchange.

Fear (and its associated tendencies toward self-protective behavior) should predominate when others are perceived to threaten the group's physical safety. We furthermore hypothesize that fear may be a secondary emotional reaction to an out-group perceived to obtain in-group economic resources, seize or damage in-group property, interfere with in-group social coordination, or betray trust relations with the in-group, because each of these obstacle threats signals potential uncertainty for future well-being. Because physical and moral contamination may also heighten insecurity

Table 2
Hypothesized Theoretical Connections Between Perceived Threats to the In-Group and Elicited Primary and Secondary Emotions

Primary emotional reaction	Eliciting threat perceptions	Associated motivations	Secondary emotional reactions
Anger	Obstacles to in-group:	Remove obstacles:	
	Threat to group economic resources	Reclaim economic control	Envy, fear
	Threat to group property	Reclaim or secure property	Fear
	Threat to personal freedoms and rights of group members	Protect/reclaim compromised liberties	Disgust
	Threat to reciprocity relations (by choice)	Obtain object or effort not properly exchanged	Disgust
	Threat to social coordination	Restore effective group functioning	Fear
	Threat to trust relations	Minimize damage caused by violation	Fear
Disgust	Contamination to in-group:	Minimize contamination:	
	Threat to group health via contagion	Prevent harmful diseases	Fear, pity, anger
	Threat to group values	Maintain and confirm value system	Anger, fear
Fear	Endangered group physical safety	Protect self and valued others	Anger
Pity	Threat to reciprocity relations (because of inability)	Return to a proper exchange relationship	Anger/resentment
Guilt	Threat to perception of in-group's morality	Confirm standing as a moral group	Anger

Note. Secondary emotions arise when the eliciting threat perception implies the likely presence of a second threat (e.g., when a threat to reciprocity [by choice] also implies a morality violation). From *From Prejudice to Intergroup Relations: Differentiated Reactions to Social Groups* (p. 272), by D. M. Mackie & E. R. Smith (Eds.), 2002. New York: Psychology Press. Copyright 2002 by Psychology Press. Adapted with permission.

about the future well-being of in-group members (especially susceptible individuals), fear may also be elicited secondarily by perceived threats to group health or group values.

Pity should predominate when others, particularly those potentially existing within an extended in-group, are distressed because they are unable to maintain a reciprocity-based relationship for reasons outside their control (i.e., inability); this may impel prosocial behavior focused on increasing the likelihood that others may be able to meet reciprocity-based obligations in the future. In addition, pity may occur as a secondary emotional reaction to a perceived threat to group health if the diseased others are not held responsible for contracting or passing along their affliction (e.g., Dijker, Kok, & Koomen, 1996; Weiner, Perry, & Magnusson, 1988).

Guilt should predominate when an out-group, suffering because of actions of the perceiver's group, is believed to threaten the moral standing of the perceiver's group. After committing such image-damaging moral transgressions, individuals may then behave in ways to validate the in-group's position as good and moral (e.g., Branscombe, Doosje, & McGarty, 2002; Lickel, Schmader, & Barquissau, 2004). Finally, envy should occur as a secondary emotional reaction to others who acquire the in-group's economic resources, because these others now possess a desirable object or opportunity that the in-group lacks.

Hypotheses

From the above considerations we have derived five general hypotheses:

> *Hypothesis 1:* Different groups can evoke qualitatively different profiles of emotional reactions.

To the extent that different groups can be seen to pose different patterns of threats—see below—they should evoke different profiles of emotional reactions.[3]

> *Hypothesis 2:* Measures of prejudice as traditionally conceived will often mask the variation across groups in evoked emotion profiles.

Because of its conceptualization as a general attitude or evaluation, the traditional measurement of prejudice can obscure the qualitatively distinct emotional responses people have to different groups. This hypothesis will be supported if different groups elicit similar levels of general prejudice but distinct emotion profiles.

> *Hypothesis 3:* Different groups can evoke qualitatively different profiles of perceived threats.

Different groups may be perceived to threaten group-level resources and group integrity in different, and multiple, ways: Some may seize our territory and advocate values and principles incompatible with those we cherish; others may carry infectious diseases and fail to contribute their share to the common good. Such groups should elicit distinct threat profiles.

> *Hypothesis 4:* General measures of perceived threat will often mask the variation across groups in evoked threat profiles.

Just as general measures of prejudice may obscure differentiated emotional reactions to groups, general measures of perceived threat may conceal differentiated threats ostensibly posed by different groups. This hypothesis will be supported if different groups elicit similar levels of general threat but distinct threat profiles.

> *Hypothesis 5:* Profiles of the specific threats posed by different groups will reliably and systematically predict the emotion profiles evoked by these groups.

If our analysis is correct, profiles of emotional reactions should emerge naturally from profiles of threat perceptions, as articulated in Table 2. This hypothesis will be supported if we can demonstrate a systematic link between the observed threat and emotion profiles.

Other Contemporary Emotion- and Threat-Based Approaches to Prejudice

We are not alone in recognizing the importance of moving beyond the traditional view of prejudice as a general attitude (for a review, see Mackie & Smith, 2002). Moreover, others have explicitly explored the concept of intergroup threat to tangible resources (e.g., LeVine & Campbell, 1972; Sherif, 1966; Stephan & Renfro, 2002). We briefly review these alternative approaches to clarify important points of overlap with our sociofunctional approach as well as to highlight some of the unique contributions made by the current research.

Esses and her colleagues (Esses & Dovidio, 2002; Esses, Haddock, & Zanna, 1993; Haddock, Zanna, & Esses, 1993) have assessed the discrete emotional reactions (e.g., fear, anger, disgust), stereotypes (e.g., friendly, lazy), symbolic beliefs (e.g., "promote religious values," "block family values"), and general attitudes (i.e., prejudice) associated with assorted ethnic and social groups (e.g., French Canadians, Blacks, homosexuals). To explore the associations among these constructs for each group, these researchers combined the valence and frequency of each reaction to create a single, aggregate indicator for each construct. Although an appropriate strategy given their theoretical interests, such aggregations precluded the possibility of assessing within their samples whether prejudice (as a general attitude) obscured the presence of differing emotion profiles for their different target groups and whether aggregated symbolic beliefs (constituting, perhaps, one form of threat) obscured the presence of differing symbolic threat profiles for their different target groups. Thus, although their data are potentially useful for exploring Hypotheses 1 and 2, in particular, and Hypotheses 3–5 to a substantially lesser extent, their analyses do not provide such tests.

In an examination of prejudice against ethnic out-groups, Dijker and his colleagues (Dijker, 1987; Dijker, Koomen, van den Heuvel, & Frijda, 1996) assessed the emotional reactions native Dutch people experience toward different ethnic minorities (e.g., Surinamese, Turkish, and Moroccan immigrants). They, too, aggregated over discrete emotions to create, on the basis of exploratory

[3] Groups sometimes provide each other with opportunities as well as threats. However, in light of the great bulk of existing prejudice and intergroup relations research, we focus in this article on patterns of threats and related discrete emotions.

factor analyses, four affect categories (i.e., positive mood, anxiety, irritation, concern). Despite this partial aggregation—and the difficulty it causes for rigorously testing Hypothesis 1—their findings nonetheless suggest the importance of considering specific emotions when exploring intergroup affect (e.g., Surinamese, but not Turks or Moroccans, evoked anxiety). Moreover, their data also suggest that certain threats may be more strongly associated with some emotional responses than others (e.g., the perception of danger was associated with anxiety more often than with irritation or worry), a finding consistent with Hypothesis 5. Thus, although far from a systematic and thorough test of our hypotheses, Dijker and colleagues' findings do lend them some support.

The stereotype content model (Fiske et al., 2002; Fiske, Xu, Cuddy, & Glick, 1999) posits that people experience distinct emotions toward groups perceived to differ on the dimensions of warmth and competence—pity toward high-warmth but low-competence groups, envy toward low-warmth but high-competence groups, admiration toward high-warmth and high-competence groups, and contempt toward low-warmth and low-competence groups. With respect to numerous ethnic, political, religious, and social groups within America, these researchers did indeed observe the predicted differentiated emotional reactions to groups, consistent with Hypothesis 1. We note, however, that (a) their four emotion clusters aggregate across emotions typically believed to be discrete (e.g., anger and disgust are both in the cluster labeled "contempt"), (b) other fundamental emotions (for example, fear) were never analyzed because they failed to fit cleanly into one of these four empirically driven clusters, and (c) the categorical nature of their framework (and accompanying analysis strategy) does not suggest the conceptual possibility that different groups elicit multiple emotions in different configurations (i.e., emotion profiles). As a consequence, the findings from this approach likely underestimate the diversity of emotional reactions people have to different groups; we present evidence suggesting this very point below. Moreover, the aims of these researchers were different than ours, and so we are not able to use their data to test our Hypotheses 2–5.

Intergroup emotions theory (IET; Devos, Silver, Mackie, & Smith, 2002; E. R. Smith, 1993, 1999; Mackie et al., 2000) arises from the melding of social identity and self-categorization theories, on the one hand, with appraisal theories of emotions, on the other. As with our approach, IET posits that people experience a diversity of discrete intergroup emotions toward different groups. In particular, when social identities are salient, individuals interpret situations in terms of harm or benefit for one's own group and experience specific emotions as suggested by assorted appraisal theories of emotion (they cite Frijda, 1986; Roseman, 1984; Scherer, 1988; C. A. Smith & Ellsworth, 1985). The predictions generated from IET will overlap with the predictions derived from our own framework to the extent that it uses a similar, functionally grounded theory of discrete emotions (which it appears to do) and a similar threat-based appraisal system (which is unclear); indeed, we suspect that the five hypotheses proposed here would be seen by IET proponents as consistent with that approach. Empirically, however, E. R. Smith, Mackie, and their colleagues (Devos, Silver, Mackie, & Smith, 2002; E. R. Smith, 1993, 1999; Mackie et al., 2000) have limited their explorations to the emotions of anger and fear, within the context of having experimental participants imagine interacting with groups designed to differ in the strength of threat they posed to participant in-groups (e.g., individuals valuing social order vs. freedom; fellow students at one's university). To this point, then, the data generated by IET researchers do not test our Hypotheses 1–4 and provide only a partial test of Hypothesis 5.

According to image theory (M. G. Alexander, Brewer, & Herrmann, 1999; Brewer & Alexander, 2002), specific configurations of appraisals on the dimensions of intergroup competition, power, and status give rise to differentiated emotional reactions (e.g., anger, fear, envy), cognitive images (e.g., out-group as enemy, barbarian, or imperialist), and action tendencies (e.g., attack, defend, rebel). This perspective is compatible with ours in its aim to link specific threats to specific emotions, although image theory focuses more on the sociostructural relations from which different threats and opportunities emerge, whereas we focus more on particular threats and opportunities per se. Recent empirical work examining relations among White and Black American high school students supports the image theory notion that differentiated emotional reactions are indeed associated with different out-group images (Brewer & Alexander, 2002). The findings of these researchers are thus compatible with our Hypotheses 1, 3, and 5, although we note that their categorical scheme, like that of stereotype content theory, does not straightforwardly account for the possibility that different groups elicit multiple emotions in different configurations (i.e., that they may elicit different emotion profiles).

Finally, the revised integrated threat theory (Stephan & Renfro, 2002) emphasizes the importance of threat for understanding prejudice. Revised integrated threat theory posits that four umbrella categories of constructs—realistic threats to the in-group, symbolic threats to the in-group, realistic threats to the individual, and symbolic threats to the individual—cause negative psychological (e.g., prejudice) and behavioral (e.g., aggression) reactions to groups thought to pose such threats. This perspective focuses on a relatively small number of tangible threats, however, and like realistic conflict theories before it (e.g., LeVine & Campbell, 1972; Sherif, 1966) makes no claims as to how different specific threats would elicit distinct, specific emotions. Thus, the data generated by this approach are potentially relevant only to our Hypothesis 3.

Thus, although there exist clear points of convergence between our sociofunctional approach and these other perspectives, the points of divergence are also significant; we further compare the alternative approaches below. Moreover, note that none of the empirical work emerging from these approaches has explicitly tested Hypotheses 2 and 4—that general measures of prejudice and threat may actually mask across-group differences in emotion and threat profiles—or has tested Hypotheses 3 and 5 in a comprehensive manner.

To test our hypotheses and to provide a uniquely rich data set useful for beginning the process of empirically differentiating among approaches, we presented participants with an assortment of ethnic, religious, and ideological groups within the United States and inquired about (a) the specific emotional reactions they have toward these groups, (b) the general feeling (i.e., prejudice) they have toward these groups, (c) the specific threats they perceive these groups as posing, and (d) the general threat they perceive these groups as posing. We predicted that different groups would elicit different profiles of discrete emotions and threats

(Hypotheses 1 and 3); that differentiations among these emotion and threat profiles would often be effectively masked by simple valence-based measures of prejudice and threat (Hypotheses 2 and 4); and that there would be systematic, functional links between specific threats and specific emotions, as articulated in Table 2 (Hypothesis 5).

Method

Participants

Two hundred thirty-five European American undergraduate students participated. They were, on average, 20.60 years old ($SD = 3.53$), predominantly female (63%), and self-identified as mainstream Christian (51%). The majority (64%) were recruited from upper division psychology classes and received extra credit in exchange for their participation. The remainder were recruited from the introductory psychology subject pool and received required course credit in exchange for their participation.

Procedure

Participants from upper division psychology courses completed the questionnaire packets out of the classroom, on their own time. Questionnaire packets were distributed to the introductory psychology participants in small groups in the laboratory; they completed the items at their own pace. Presentation of the affective response and threat perception items for each group was counterbalanced across all participants.

Presented in one of 10 random orders, participants rated a set of nine groups: activist feminists, African Americans, Asian Americans, European Americans, fundamentalist Christians, gay men, Mexican Americans, Native Americans, and nonfundamentalist Christians. Because we expected few threats and little threat-related emotion to be associated with one's own groups, the participants' ethnic in-group (European Americans) and modal religious in-group (nonfundamentalist Christians) were included to serve as baselines for comparison with the other groups. We selected the additional target groups because (a) our European American participants in the American Southwest likely perceive themselves to be involved with these groups in mutually interdependent relationships involving tangible outcomes, and (b) common stereotypes suggest that these groups might be seen to pose a range of different threats—a requirement if we were to appropriately test our hypotheses. To wit, we suspected that activist feminists, fundamentalist Christians, and gay men would be seen as threatening the values and personal freedoms of our student sample and in somewhat different ways; that gay men would be seen as posing a threat to health (via a perceived association with HIV/AIDS); that Asian Americans would be seen as posing an economic threat; that African Americans and Mexican Americans would be viewed as posing physical safety, property, and reciprocity (by choice and inability) threats; and that Native Americans would be viewed as posing threats to reciprocity (by inability). Note that the test of our hypotheses does not depend on whether we are correct in the above presumptions of which groups are associated with particular threats. Indeed, we could be entirely wrong in the threats we expect each group to pose but receive perfect support for our hypotheses—if the emotions elicited by a group are those that map as predicted onto the threats that group is actually perceived by our participants to pose. However, we were confident—on the basis of past research (e.g., Cottrell, Neuberg, & Asher, 2004; Devine & Elliot, 1995; Esses & Dovidio, 2002; Haddock et al., 1993; Haddock & Zanna, 1994; Hurh & Kim, 1989; Yee, 1992)—that the collection of groups selected would provide enough variation in perceived threats to enable an adequate test of our hypotheses.

Measures

Affective Reactions

To assess affective responses to the selected groups, participants reported the extent to which they experienced each feeling when thinking about a particular group and its members (1 = *Not at all*, 9 = *Extremely*). To assess overall positive evaluation, participants reported the degree to which they liked and felt positive toward each group; to assess overall negative evaluation, participants reported the extent to which they disliked and felt negative toward each group. In addition, we measured 13 emotional reactions with two items each. Some of these emotions were selected because of their straightforward relevance to our theory (see Table 2)—anger, disgust, fear, pity, envy, and guilt—or because they were longer lasting but less intense instantiations of these (i.e., resentment, anxiety). Others were included merely to provide participants with a broader emotional judgment context (i.e., respect, happiness, hurt, sadness, pride, security, and sympathy). All participants completed these affective response items in the same random order for all groups.

Threat Perceptions

To assess perceived threats associated with the selected groups, participants indicated the extent to which they agreed with statements regarding the general and specific threats that each group poses to American citizens and society (1 = *Strongly Disagree*, 9 = *Strongly Agree*). To assess general threat, participants reported the extent to which each group was dangerous and posed a threat to American citizens. To assess specific threats relevant to our sociofunctional approach (see Table 2), participants reported the extent to which they believed the target group threatened jobs and economic opportunities, threatened personal possessions, threatened personal rights and freedoms, violated reciprocity relations by choice, threatened social coordination and functioning, violated trust, threatened physical health, held values inconsistent with those of the in-group, endangered physical safety, and violated reciprocity relations because of a lack of ability.[4] Two items were included to measure each of these 10 threats. All participants completed the 2 general threat items followed by the 20 specific threat items in a random arrangement.

Results

Composite Scores and Difference Scores

As described, all participants completed two items designed to assess each emotion and threat construct. These a priori item pairs correlated highly with one another (all rs $> .70$), and so we averaged them to create composite scores for each general and specific affective response and for each general and specific threat perceived. Although it is not uncommon for researchers to further aggregate such data on the basis of exploratory factor analyses, we have chosen not to do so on technical and theoretical grounds. Technically, because exploratory factor analysis is a data-driven approach, it runs the risk of capitalizing on chance characteristics in the data and creating unstable and incoherent factor solutions (Conway & Huffcutt, 2003; Fabrigar, Wegener, MacCallum, &

[4] In exploratory fashion, we included items designed to assess threats that groups may pose to one's own group's moral standing in the hope that they would uniquely predict feelings of guilt. Unfortunately, we worded the items poorly, and the composite appears instead to capture a more general sense of threat. We thus exclude this composite from all analyses to follow but note that including it alters neither our findings nor our conclusions.

Table 3
Means and Standard Deviations of Emotional Reactions (Relative to European Americans)

	Anger/resentment		Disgust		Fear/anxiety		Pity		Envy		Prejudice	
Group	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Activist feminists	0.89	2.02	1.01	2.21	0.24	1.50	0.55	1.62	−0.22	1.40	3.38	4.56
African Americans	0.54	1.66	0.47	1.76	0.90	1.63	1.14	1.81	−0.15	1.39	1.14	3.63
Asian Americans	0.16	1.39	−0.01	1.44	−0.05	1.05	0.22	1.12	0.01	1.34	0.89	3.31
Fundamentalist Christians	0.94	2.12	1.10	2.37	0.57	1.75	0.91	2.16	−0.21	1.38	3.37	4.85
Gay men	0.62	2.06	1.84	2.92	0.08	1.56	1.60	2.46	−0.56	1.31	2.78	4.80
Mexican Americans	0.87	1.99	0.97	2.12	0.86	1.64	1.21	1.88	−0.39	1.22	2.49	4.03
Native Americans	0.25	1.52	0.25	1.68	0.04	1.08	2.18	2.41	−0.13	1.44	0.76	3.48
Nonfundamentalist Christians	0.21	1.37	0.27	1.62	0.02	1.17	0.27	1.54	−0.21	1.36	1.53	3.45

Strahan, 1999). Theoretically, we believe that the individual threat measures—though correlated with one other—assess distinct categories of threat: Stealing a person's car is not the same as making the person ill or assaulting him or her with a weapon. On similar grounds, as many emotions researchers have emphasized, it is necessary to maintain firm empirical distinctions among our measured emotions: Feeling angry is not the same as feeling disgusted or feeling afraid. Indeed, growing evidence demonstrates that unique universal signals, nervous system responses, and antecedent events differentiate the basic emotions (e.g., anger, disgust, fear; Ekman, 1999). This decision to maintain firm distinctions among our threat and emotion constructs is supported by confirmatory factor analyses (CFAs).[5] Moreover, if we are incorrect in our belief that these threats and emotions are distinct from one another—if, for example, anger, disgust, and fear functioned identically for our participants—then the predicted textured patterning of perceived threats and emotional patterns would not emerge, and our hypotheses would be disconfirmed.

As noted above, our focus is on the potential patterning of threat-related emotions. These reactions better describe the intergroup interactions of interest, and focusing our report on them greatly streamlines the presentation of a large amount of data. We thus created emotion composite scores for the emotion constructs most relevant to our theoretical approach: anger/resentment, disgust, fear/anxiety, pity, and envy.[6] To create a measure of overall negative prejudice, we subtracted the positive evaluation composite score for each group from the negative evaluation composite score for that group; higher values on this overall prejudice measure indicate more negative prejudice toward the group.

To test Hypotheses 1–4, we used each participant's affect and threat ratings of European Americans as a baseline for comparison against their ratings of the other groups. Thus, we created and analyzed difference scores for each affect and threat by subtracting each participant's affect and threat rating for European Americans from his or her affect and threat rating for each other group. The ratings reported below thus reflect mean difference scores (relative to European Americans) for all participants in our sample. Because all participants were European American, this approach serves to eliminate idiosyncratic differences in participants' tendencies to perceive particular threats and to experience particular emotions and greatly aids with the visual identification and interpretation of affect and threat patterns. Note that our conclusions regarding Hypotheses 1–4 remain unchanged if we instead analyze raw (i.e., nondifference) scores.

Tests of Hypotheses

Hypothesis 1: Different Groups Can Evoke Qualitatively Different Profiles of Emotional Reactions

We conducted a two-way (Target Group × Emotion Experienced) repeated-measures analysis of variance (ANOVA) on the mean difference emotion ratings; a significant Target Group × Emotion Experienced interaction would reveal that the emotion profiles do indeed differ across groups. As predicted, this interaction emerged as highly statistically significant, $F(28, 6384) = 31.03$, $p < .00001$, partial $\eta^2 = .120$; Table 3 presents the means and standard deviations for all emotion ratings for all groups. These data provide substantial support for Hypothesis 1. People may indeed report different patterns of emotional experience to-

[5] For each target group, a chi-square difference test revealed that our a priori 10-factor threat model (10 specific threat factors, each represented by an item pair) demonstrated a good fit to the data (as shown by comparative fit index [CFI], root-mean-square error of approximation [RMSEA], and standardized root-mean-square residual [SRMR] values) and fit the data significantly better than a 1-factor threat model (1 general threat factor, represented by all threat items). Similar support was found for our emotion model: Chi-square difference tests revealed that our a priori 5-factor emotion model (anger, disgust, fear, pity, and envy factors, each represented by an item pair) demonstrated a good fit to the data (as shown by CFI, RMSEA, and SRMR values) and fit the data significantly better than a 1-factor emotion model (1 general emotion factor, represented by all emotion items), again for all target groups. Because anger and disgust are sometimes grouped together by exploratory factor analyses (as in research by Fiske et al., 2002), we also compared the 5-factor emotion model with a 4-factor emotion model that combined anger and disgust into 1 factor. For seven of the nine target groups, a chi-square difference test revealed that this 4-factor model fit the data significantly worse than the 5-factor model; for the remaining two target groups, the 4-factor model fit worse than our preferred 5-factor alternative, although not significantly so. In all, the CFAs strongly validate our theory-based decisions to use measures of relatively discrete threats and emotions.

[6] Because of our unsuccessful attempt to generate a valid measure of morality threat (see Footnote 4), we were unable to conduct our focal threat–emotion analysis for this threat's associated emotion (i.e., a test of the proposed link between threat to in-group morality and guilt). As a result of this failure to fully test our hypotheses related to guilt, we chose to discard guilt from further analyses. Note that including the discarded items in analyses does not alter any of our conclusions. These complete data are available from the authors by request.

ward different groups. For the purpose of more clearly illustrating the diversity of emotional response to groups, we highlight participants' affective reactions to two subsets of groups in Figure 1 (African Americans, Asian Americans, and Native Americans) and Figure 2 (activist feminists, fundamentalist Christians, and gay men).

Hypothesis 2: Measures of Prejudice as Traditionally Conceived Will Often Mask the Variation Across Groups in Evoked Emotion Profiles

We have just seen that different groups can evoke different patterns of discrete emotions. Hypothesis 2 would be supported if groups that elicit distinct emotion profiles nonetheless elicit similar levels of general prejudice. Such a finding would illustrate that prejudice can mask meaningful patterns of underlying emotions. Indeed, as seen in Table 3, many groups that differed from one another in the emotion profiles they evoked also evoked comparable degrees of general prejudice. We illustrate this general pattern with the two subsets of groups presented in Figures 1 and 2.

As presented in Figure 1, African Americans, Asian Americans, and Native Americans differed significantly in the emotion profiles they elicited in our participants. Moreover, they each evoked general negative prejudice: Prejudice difference score for African Americans = 1.14, $t(228) = 4.74$, $p < .001$; for Asian Americans, difference = 0.89, $t(228) = 4.06$, $p < .001$; and for Native Americans, difference = 0.76, $t(228) = 3.32$, $p < .001$. Finally, supporting Hypothesis 2, the prejudice ratings for these three groups did not significantly differ from one another, $F(2, 456) = 1.42$, $p = .24$, $\eta^2 = .006$. Thus, although our participants expressed similar overall negativity toward African Americans, Asian Americans, and Native Americans, they nonetheless reported different discrete emotional reactions toward them. This strongly suggests that measures of general prejudice can indeed mask a rich diversity of discrete emotional reactions.

As presented in Figure 2, activist feminists, fundamentalist Christians, and gay men also differed significantly in the patterns of discrete emotions they elicited in our participants. Moreover, they all elicited substantial amounts of negative prejudice: Prejudice difference scores for feminists = 3.38, $t(228) = 11.20$, $p < .001$; for fundamentalist Christians, difference = 3.37, $t(228) = 10.51$, $p < .001$; and for gay men, difference = 2.78, $t(228) = 8.75$, $p < .001$. Yet here again, the prejudice ratings for these three groups did not differ from one another, $F(2, 456) = 1.47$, $p = .231$, $\eta^2 = .006$. This pattern, too, illustrates that measures of overall prejudice can mask a notable diversity of discrete emotional reactions.

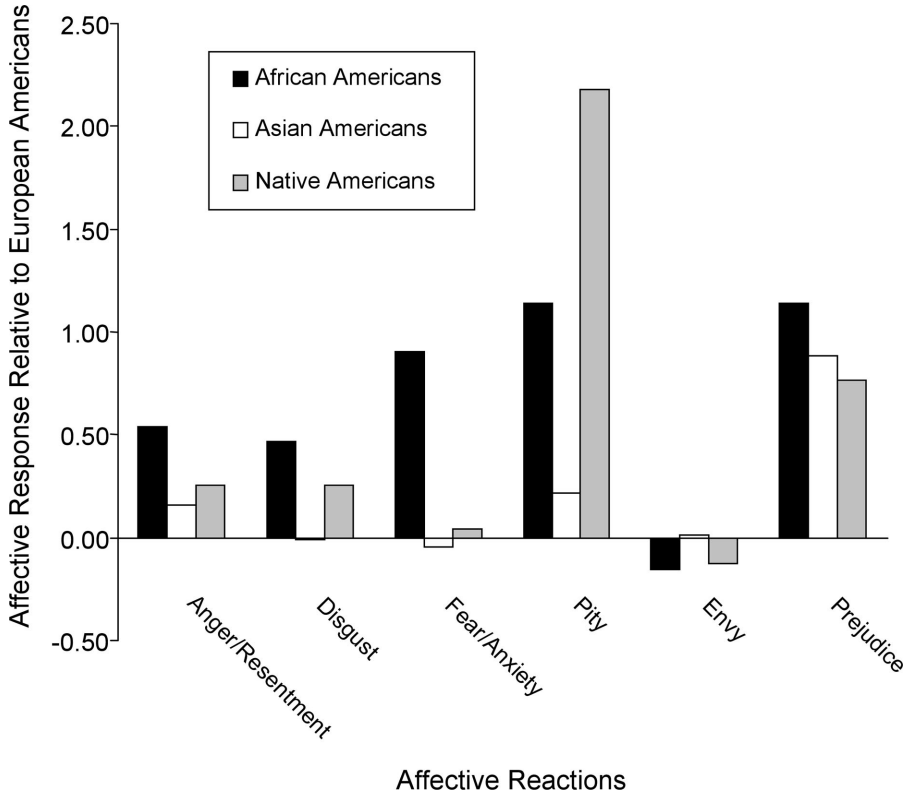

Figure 1. Participants' mean affective reactions to African Americans, Asian Americans, and Native Americans, relative to affective reactions to European Americans. A repeated-measures analysis of variance on the emotion ratings for these three groups revealed a significant Target Group × Emotion Experienced interaction, $F(8, 1824) = 50.63$, $p < .00001$, partial $\eta^2 = .182$, supporting Hypothesis 1: Participants reported different patterns of emotional reactions to these different groups.

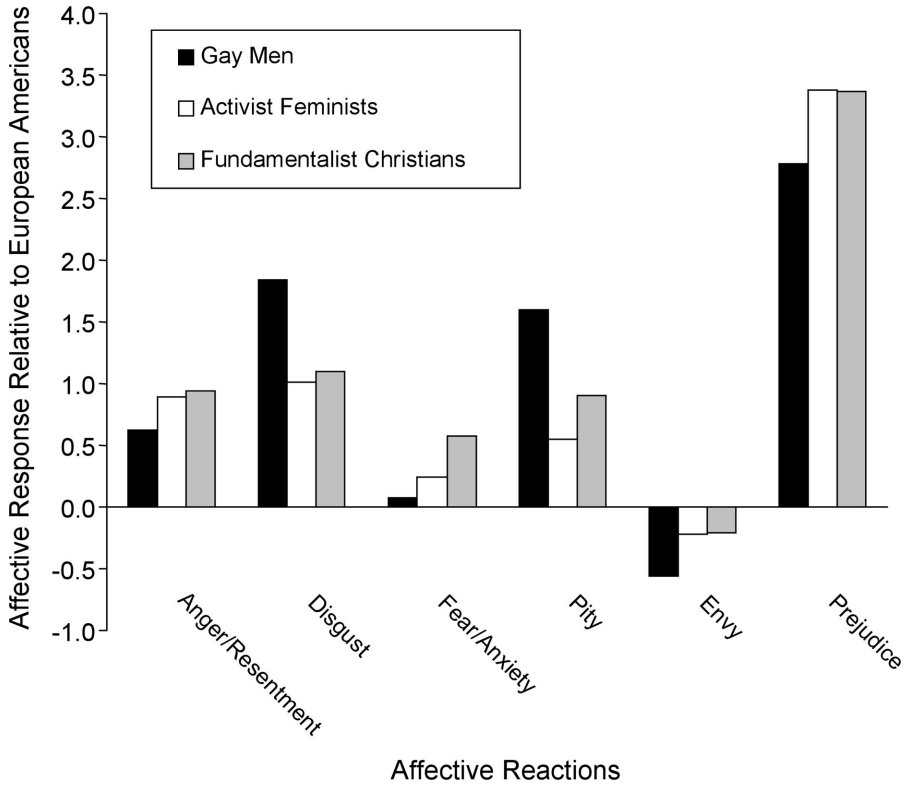

Figure 2. Participants' mean affective reactions to activist feminists, fundamentalist Christians, and gay men, relative to affective reactions to European Americans. A significant Target Group × Emotion Experienced interaction, $F(8, 1824) = 15.98$, $p < .00001$, partial $\eta^2 = .065$, emerged in a repeated-measures analysis of variance on the emotion ratings for these three groups, indicating that participants experienced different patterns of emotional reactions to them.

Hypothesis 3: Different Groups Can Evoke Qualitatively Different Profiles of Perceived Threats

We performed a two-way (Target Group × Threat Perceived) repeated-measures ANOVA on the mean difference threat ratings; a significant Target Group × Threat Perceived interaction would reveal that different groups can indeed be viewed as posing different profiles of threat. As predicted, this interaction emerged as a significant effect, $F(63, 14427) = 46.15$, $p < .00001$, partial $\eta^2 = .168$; Table 4 presents the means and standard deviations for all threat ratings for all groups. These patterns of perceived threats provide substantial support for Hypothesis 3: People may indeed perceive different patterns of specific threats from different groups. For the purpose of more clearly illustrating this effect, we present in Figure 3 the patterns of threats people perceived from activist feminists, African Americans, and fundamentalist Christians.

Hypothesis 4: General Measures of Threat Will Often Mask the Variation Across Groups in Evoked Threat Profiles

Our participants often believed that different groups threatened America in different ways. Hypothesis 4 would be supported if groups that evoked distinct threat profiles nonetheless evoked similar levels of general threat. Indeed, as seen in Table 4, many groups that differed from one another in the profiles of specific threats ostensibly posed also evoked similar perceptions of general threat. We illustrate this general pattern with the subset of groups presented in Figure 3.

As presented in Figure 3, our participants viewed African Americans, activist feminists, and fundamentalist Christians as posing significantly different profiles of threat. Moreover, these groups are all viewed as generally threatening—the scores all differ from the European American baseline. For the general threat posed by African Americans, difference = 0.87, $t(229) = 7.27$, $p < .001$; for activist feminists, difference = 0.76, $t(229) = 5.87$, $p < .001$; and for fundamentalist Christians, difference = 0.85, $t(229) = 5.85$, $p < .001$. Finally, supporting Hypothesis 4, the general threat ratings for these groups do not differ from one another, $F(2, 458) = 0.24$, $p = .789$, $\eta^2 = .001$. Thus, just as a focus on general prejudice can mask an interesting and rich diversity of functionally important emotions evoked by groups, a focus on general threat can mask an interesting and rich diversity of specific threats the groups are seen as posing.

We have seen, then, strong support for Hypotheses 1–4. In addition, we note that Cottrell, Neuberg, and Asher (2004) used

Table 4
Means and Standard Deviations of Threat Perceptions (Relative to European Americans)

Group	Economic		Property		Freedoms		Reciprocity (choice)		Social coordination		Trust		Health		Values		Safety		Reciprocity (inability)		General threat	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Activist feminists	0.03	1.73	0.20	1.48	0.71	2.02	0.28	1.97	1.55	2.31	0.65	1.91	−0.10	1.28	1.11	2.43	0.25	1.51	0.39	1.72	0.76	1.97
African Americans	0.39	1.78	0.85	1.82	0.52	1.66	0.96	2.21	0.84	1.75	0.61	1.64	0.38	1.50	0.25	2.00	1.07	1.89	0.75	1.86	0.87	1.82
Asian Americans	0.94	2.02	0.20	1.45	0.17	1.39	0.15	1.87	0.23	1.36	0.31	1.50	−0.07	1.06	1.09	2.11	0.02	1.22	0.13	1.54	0.23	1.39
Fundamentalist Christians	−0.17	1.56	0.34	1.77	1.33	2.56	0.17	1.96	1.01	2.19	0.72	2.03	−0.04	1.37	1.18	2.55	0.35	1.66	0.16	1.73	0.85	2.20
Gay men	−0.48	1.60	−0.28	1.25	0.08	1.59	−0.33	1.88	0.95	2.02	0.05	1.59	2.05	2.76	1.32	2.77	0.37	1.75	−0.10	1.70	0.33	1.93
Mexican Americans	1.07	2.16	1.37	2.13	0.81	1.85	1.52	2.38	1.03	1.92	1.03	2.05	0.80	1.78	0.98	2.06	1.19	2.06	1.51	2.20	1.11	2.00
Native Americans	0.34	2.12	0.30	1.68	0.08	1.39	0.82	2.55	0.18	1.49	0.20	1.67	0.03	1.21	1.47	2.29	0.11	1.31	0.90	2.26	0.04	1.31
Nonfundamentalist Christians	−0.38	1.54	−0.04	1.33	0.20	1.55	−0.27	1.68	0.31	1.58	0.19	1.51	−0.19	1.17	0.08	2.16	0.02	1.17	−0.03	1.34	0.15	1.45

nearly identical procedures and measures in three additional samples. These other studies demonstrate patterns of threat perceptions and affective reactions strikingly similar to the ones we reported here and thus strongly corroborate our findings.[7]

Hypothesis 5: Profiles of the Specific Threats Posed by Different Groups Will Reliably and Systematically Predict the Emotion Profiles Evoked by These Groups

If intergroup emotion indeed represents a functional response to intergroup threat, then we should observe the hypothesized threat–emotion links articulated in Table 2. We explored these hypothesized connections using two essentially independent tests—one based on correlations among the measures, the other based on means of the measures.

Multiple regression approach. To predict each discrete emotion from the 10 specific threats, controlling for the influence of the other threats, we pursued a multiple regression strategy. The intercorrelations among specific threats and between all threats and all emotions were substantial, however, leading to special statistical problems (e.g., multicollinearity, suppression) and rendering findings from these models hard to interpret. We thus used instead the threat classes articulated in Table 2. Specifically, we averaged the 6 threats from the "obstacles" category (i.e., threats to economic resources, property, personal freedoms, reciprocity [by choice], social coordination, and trust), and the 2 threats from the "contamination" category (threats to group health and values). The 2 remaining threats—of physical danger and nonreciprocity because of inability—were represented as before.[8]

We examined threat–emotion relations across target groups. Recall that participants rated all nine groups on threat perceptions and emotional reactions. To avoid complex technical issues related to nonindependence of data, each participant was randomly assigned to provide threat and emotion ratings for only one of the target groups, thereby yielding approximately equal numbers of entries for each group. This random sample of the complete data set thus contained information on all four threat categories and all five discrete emotions across the nine target groups; this enabled

[7] Some of those findings were reported in preliminary form (Neuberg & Cottrell, 2002). The full data sets from these additional samples are available from the authors on request.

[8] CFAs also offer some empirical support for this decision to arrange the 10 specific threats into four threat classes. We tested a higher order threat model with the second-order obstacles factor (on which six first-order threat factors load), the second-order contamination factor (on which two first-order threat factors load), the first-order physical safety threat factor, and the first-order nonreciprocity (by inability) threat factor. For each target group, this model demonstrated a marginally adequate fit to the data (as shown by CFI, RMSEA, and SRMR values). Although this four-factor threat model may be less than ideal to capture relationships among the threats, our current purposes rest with explaining threat–emotion links. As such, we have chosen to use this threat representation in which specific threats believed to elicit the same emotion are clustered together into threat classes. Note that the less than ideal status of this measurement model can only work against our hypotheses relating obstacle threats to anger and contamination threats to disgust.

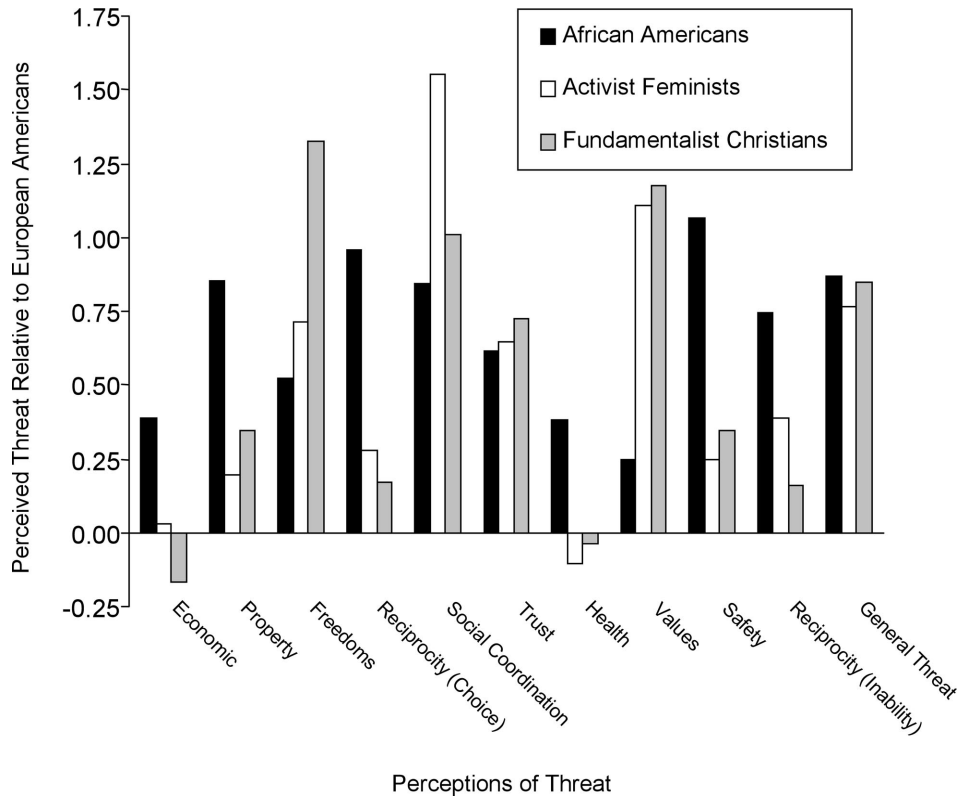

Figure 3. Participants' mean threat perceptions for activist feminists, African Americans, and fundamentalist Christians, relative to threat perceptions for European Americans. A repeated-measures analysis of variance on the threat ratings for these three groups revealed a significant Target Group × Threat Perceived interaction, $F(18, 4122) = 30.05$, $p < .00001$, partial $\eta^2 = .116$, indicating that participants perceived different patterns of threat from these groups and thus illustrating support for Hypothesis 3. Reciprocity (Choice) = nonreciprocity by choice; Reciprocity (Inability) = nonreciprocity by inability.

us to perform five regression analyses, each predicting one emotion from the four threat categories, thereby allowing us to assess the independent predictive ability of each threat for each emotion. Because a huge number of different subsamples could be randomly drawn from the complete sample, we conducted these analyses on 50 randomly selected subsamples to reduce the likelihood of drawing conclusions from data patterns idiosyncratic to particular chance samplings. Though not identical, this strategy is somewhat similar to bootstrapping and resampling procedures.

In Table 5, we present the mean standardized regression coefficients, averaged across the 50 random subsamples, for each threat category in the regression of each emotion. Note that the general pattern of regression coefficients provides yet another demonstration of the problem associated with conceiving intergroup affect and threat as unidimensional constructs: Different intergroup emotions are predominantly associated with different classes of threat. We turn now to the regression analyses for each emotion, in turn.

In line with the hypothesized theoretical connections articulated in Table 2, we expected anger to be independently predicted by obstacle threats; this was clearly the case (average $\beta = .58$, $p < .001$). We also hypothesized that anger might be a secondary emotional reaction to threats to group health and group values; the contamination category did indeed predict anger (average $\beta = .11$, $p < .001$). We also speculated that anger might be secondarily associated with threats to physical safety and reciprocity (because of lack of ability); these speculations were not supported.

Table 5
Regressions of Each Emotion on Threat Categories

Dependent variable	Independent variable			
	Obstacles	Contamination	Physical safety threat	Nonreciprocity by inability
Anger	**.58**$*_a$	*.11*$*_b$	*.03*$_c$	*.00*$_c$
Disgust	*.36*$*_a$	**.35**$*_a$	.07$*_b$	−.04$*_c$
Fear	*.30*$*_a$	−*.01*$_b$	**.37**$*_a$	−.05$*_c$
Pity	−.08$*_a$	*.20*$*_b$	.10$*_c$	**.17**$*_b$
Envy	*.18*$*_a$	.00$_b$	.06$*_c$	−.08$*_d$

Note. Table entries are mean standardized regression coefficients across 50 random samples. Primary predictions are in boldface type; more exploratory, secondary predictions are in italics; and predictions of noneffects are in conventional font. Entries marked with an asterisk are significantly different from zero ($p < .05$). Entries marked with different subscripts within each row differ from each other ($p < .05$).

Second, we expected that disgust would be independently predicted by contamination; this hypothesis, too, was strongly supported (average $\beta = .35$, $p < .001$). We also thought that two of the obstacle threats in particular (i.e., to personal freedoms and reciprocity relations) might secondarily predict disgust; although obstacle threat as a general class did independently predict disgust (average $\beta = .36$, $p < .001$), the outcomes of our more specific speculations were clearly mixed (see Table 6).

Third, we expected that fear would be independently predicted by physical safety threat. This hypothesis was strongly supported (average $\beta = .37$, $p < .001$), as was our general secondary prediction that obstacle threats might also independently predict fear (average $\beta = .30$, $p < .001$). A perusal of Table 6, however, reveals that the success of our specific secondary predictions regarding specific obstacles was mixed.

Fourth, we expected that pity would be independently predicted by the inability to reciprocate, and this was clearly the case (average $\beta = .17$, $p < .001$). Our lone secondary hypothesis—that pity would also be independently associated with the possibility of disease contamination—was supported as well: Contamination in general predicted pity (average $\beta = .20$, $p < .001$); however, this was due to both the disease and the values components of the contamination aggregate (see Table 6).

Finally, we expected that envy would be independently predicted by the obstacle of economic threat. Consistent with this, envy was predicted by obstacle threat in the aggregate (average $\beta = .18$, $p < .001$). Moreover, a perusal of Table 6 reveals that this obstacles–envy link was indeed driven largely by economic threat in particular.

In sum, our primary predictions regarding the functional links between threat classes and their affiliated emotions find strong support in these data: Obstacle threat emerged as an independent predictor of anger, contamination threat emerged as an independent predictor of disgust, physical safety threat emerged as an independent predictor of fear, and reciprocity threat because of inability emerged as an independent predictor of pity. In addition, many of our secondary predictions were borne out as well. Indeed, taking stock of the 20 entries in Table 5, we see that (a) all four of our primary hypotheses (bolded entries) were supported and (b) five of our eight secondary hypotheses (italicized entries) were supported. As further support of our hypotheses, we note that no threat class expected to show a secondary association with an emotion emerged as a better independent predictor than the threat class expected to show a primary association with that emotion. Though our accuracy in predicting null findings (entries in conventional font) may appear less than ideal, these mean regression coefficients are numerically rather small and, in fact, never exceed a coefficient whose significance is expected as the result of a primary or secondary prediction. This overall success rate can be contrasted with the straightforward alternative that there is no specificity of links between threat classes and emotions, operationalized such that no threat classes independently predict specific emotions or that all threat classes independently and equivalently predict all emotions—neither of which received empirical support from our data.

Hypothesis 5 addresses the crux of our theoretical arguments—the notion that specific threats elicit functionally focused emotions. To fully appreciate intergroup emotions, then, the focus should be on specific threat perceptions rather than on the particular group thought to pose a threat. In this sense, the nine target groups considered in this research are secondary in interest to the threats associated with each group. Threats, as compared with target group, should be better predictors of emotions. This, of course, is an empirical question: How well do target groups per se predict emotional response after controlling for the four threat classes?

To better gauge the size of this effect, we dummy coded the target groups and compared the proportions of variation in each emotional reaction explained by four effects: effect of threats, effect of threats controlling for target group, effect of target group, and effect of target group controlling for threats. In Table 7, we present the mean ΔR^2 values, averaged across the 50 random subsamples for each of these effects in the regression of each emotion. First, we note that the threat classes, as a set, account for a substantial amount of variation in each emotion (especially in the cases of anger, disgust, and fear). Moreover, this effect remains sizable after controlling for the target group being rated. In comparison, target group tends to account for a much smaller, though still significant, portion of variation in emotional response. Crucial to our theoretical arguments, this effect significantly decreases even further after controlling for the threat classes. Threat perceptions therefore appear (at least) to partially mediate the observed group differences in emotional reactions. In theory, we would have hoped for complete mediation. Of course, even if complete mediation by threats exists, it would be difficult to uncover in this investigation because (a) we have not included in our analyses all threat perceptions relevant to emotional reactions (we do not claim to be providing a veritable census of threats); (b) for statistical stability reasons given our sample size, we only estimated main effects of threat perceptions on emotional reactions, thereby not including any of the ways in which the many possible interactions among our 10 threats might account for apparent target group effects; and (c) none of our threat perceptions and emotional reactions were measured perfectly, without error. It is thus the case

Table 6
Regressions to Test Exploratory, Secondary Predictions

	Threats					
	Obstacles category					
Dependent variable	Economic	Property	Freedoms	Reciprocity (choice)	Social coordination	Trust
Disgust	$-.05^{*}_{a}$	$.01_{b}$	$.26^{*}_{c}$	$.05^{*}_{d}$	$.38^{*}_{e}$	$.37^{*}_{e}$
Fear	$.08^{*}_{a}$	$.18^{*}_{b}$	$.24^{*}_{c}$	$.01_{d}$	$.20^{*}_{b}$	$.12^{*}_{e}$
Envy	$.20^{*}_{a}$	$.11^{*}_{b}$	$.10^{*}_{b}$	$.04^{*}_{c}$	$.04^{*}_{c}$	$.00_{d}$
			Contamination category			
			Health			Values
Pity			$.15^{*}_{a}$			$.13^{*}_{a}$

Note. Table entries are mean standardized regression coefficients resulting from the analyses of the 50 random subsamples in which each specific named threat (a) was included as the only member of its category (i.e., obstacle or contamination) and (b) served as an independent variable, along with the three remaining threat categories, in predicting the emotion of focus. Entries marked with an asterisk are significantly different from zero ($p < .05$). Entries marked with different subscripts within each row differ from each other ($p < .05$).

Table 7
Regressions to Compare Effects of Group Type and Threat Perceptions

	Proportion of variation in DV explained by			
DV	Threats	Threats controlling for group	Group	Group controlling for threats
Anger	$.49_a$	$.46_b$	$.07_c$	$.03_d$
Disgust	$.48_a$	$.44_b$	$.11_c$	$.06_d$
Fear	$.36_a$	$.29_b$	$.10_c$	$.04_d$
Pity	$.13_a$	$.10_b$	$.15_c$	$.12_a$
Envy	$.05_a$	$.05_{bc}$	$.05_{ac}$	$.06_b$

Note. Table entries are mean ΔR^2 values (across 50 random samples) for each of these four effects in the regression of each emotion. All entries are significantly different from zero ($p < .05$). Entries not sharing a common subscript within each row differ from each other ($p < .05$). DV = dependent variable.

that the unique effects of target group on emotions, as small as they are, actually overestimate their true sizes. Using the multiple regression approach, then, we see strong support for Hypothesis 5.[9]

Cluster analytic approach. Hypothesis 5 posits, generally, that emotion profiles map onto threat profiles. In addition to the multiple regression approach, then, one can alternatively test this hypothesis by assessing the extent to which groups seen to pose similar patterns of threat also evoke similar patterns of emotion. To the extent they do not, support for Hypothesis 5 would be weakened.

Cluster analysis (Hair, Anderson, Tatham, & Black, 1992) is a "technique for grouping individuals or objects into clusters so that objects in the same cluster are more like each other than they are like objects in other clusters" (p. 265), and recent uses of this analysis (Fiske et al., 2002; Lickel et al., 2000) have indeed proven valuable in identifying clusters of groups and their common characteristics. As a multivariate technique, cluster analysis is especially well suited for our purposes, because it can calculate similarities and differences among mean profiles of multiple threat or emotion ratings. One convenient technical implication of this is that cluster analysis is not susceptible to issues of multicollinearity and suppression, both of which complicated our attempt to perform simple multiple regression analyses using the 10 specific threats. A second implication is that it essentially provides an independent test of the hypothesis using the same data set.

We began by averaging the participants' ratings of each of the nine groups for each of the 10 specific threats and each of the five discrete emotions. Though we could cluster analyze threat and emotion scores representing differences relative to the threat and emotion scores for European Americans (as we did when testing Hypotheses 1–4, for the reasons discussed above), we chose to average and analyze original threat and emotion ratings for all nine groups, thereby including European Americans as a group in the cluster analyses. We expected that the participants' in-groups (that is, European Americans and nonfundamentalist Christians) might form a single cluster, with threat and emotion profiles differing from those of the other clusters. The use of original threat and emotion ratings for European Americans, as well as the other groups, allows us to explore this idea and to better examine similarities and differences in the profiles. We note that cluster analyses on the difference scores and cluster analyses on the original scores yield identical results (except for the necessary absence of European Americans from the cluster solutions for difference scores).

Following the advice and example presented in Hair et al. (1992), we used two types of cluster analysis, each serving a different purpose. Hierarchical cluster analysis is particularly useful to determine the optimal number of clusters present in the data, whereas *k*-means cluster analysis is particularly useful to determine the arrangement of the nine groups within these clusters.

Hierarchical cluster analysis operates on a similarity matrix containing similarity indices among the objects being clustered (in this case, the nine target groups), using some set of characteristics of each object (the profiles of 10 threats or five emotions). These similarity measures, which involve no decisions about the appropriate number of clusters within the data, offer an additional straightforward test of Hypothesis 5: To the extent there exists a positive correlation between threat similarity measures and emotion similarity measures, then Hypothesis 5 is further supported. Because it is the most commonly used measure of interobject similarity (Hair et al., 1992), we calculated the euclidean distance between each pair of objects two times, once using the threat profiles and once using the emotion profiles. The correlation coefficient between these threat-based distances and emotion-based distances was .41 ($p = .013$), indicating that groups that are similar on threat profiles are also similar on emotion profiles, supporting Hypothesis 5.

We note above that these similarity measures offer no explicit information about the optimal number of clusters in the data or the arrangement of groups into the clusters. As an extension of the demonstrated relationship between the threat and emotion similarity measures, however, we might reasonably expect the specific arrangement of groups into "threat clusters" to map onto the specific arrangement of groups into "emotion clusters." Because our theoretical framework assigns causal priority to perceived threats, we first performed hierarchical cluster analysis (using Ward's method) on the ratings of the specific threats ostensibly posed by the nine target groups. Although decisions about the best fitting number of clusters are inherently subjective, we adhered to conventional decision rules as outlined in Hair et al. (1992), Blashfield and Aldenderfer (1988), and Everitt and Dunn (2001). The agglomeration schedule of a hierarchical cluster analysis specifies the groups that are merged in each stage of the analysis and provides coefficients that indicate the distances between these

[9] We note two additional pieces of corroborative evidence for Hypothesis 5. First, we tested the hypothesized threat–emotion links using group-level multiple regression analyses with the threat and emotion ratings for each target group averaged across all participants; these analyses are limited by the small sample size (nine target groups), which leaves them drastically underpowered. We also tested the hypothesized threat–emotion links using multilevel models that clustered the target group ratings by participant; these analyses provide an appropriate statistical means to account for the nonindependence of target group ratings. In all, both the group-level regression analyses and the multilevel models revealed similar patterns of specific threat–emotion links to those obtained from the individual-level regression analyses on the random samples.

Table 8
Five-Cluster Solutions From Threat and Emotion Cluster Analyses

Cluster	Threat clusters	Emotion clusters
1	African Americans; Mexican Americans	African Americans; Mexican Americans
2	Fundamentalist Christians; activist feminists	Fundamentalist Christians; activist feminists
3	Gay men	Gay men
4	Native Americans; Asian Americans	Native Americans
5	European Americans; nonfundamentalist Christians	European Americans; nonfundamentalist Christians; Asian Americans

newly merged groups. Because a large agglomeration coefficient indicates that two relatively different groups have been combined, typical guidelines suggest selecting the number of clusters prior to a large increase in the agglomeration coefficient. Guided by these decision rules, a five-cluster solution offered the best fit to the threat profile data.

We next turned to *k*-means cluster analysis on the threat ratings to determine how the nine target groups fit into the five clusters. Because differences in the randomly chosen initial cluster centers may alter the final cluster solution (Hair et al., 1992), we conducted this analysis multiple times on the same data configured in different arrangements to establish the most stable five-cluster solution, which is presented in the left side of Table 8.

Moving to emotional responses, *k*-means cluster analysis was next performed on the ratings of the discrete emotions participants experienced when considering these same nine groups. As noted above, we give causal precedence to perceived threats. We therefore constrained this analysis of the emotion ratings to a five-cluster solution, because this was the most appropriate solution for the threat ratings. This cluster analysis was also performed multiple times to establish the most stable five-cluster solution, which is presented in the right side of Table 8.

As Table 8 clearly shows, there is great overlap between the clusters emerging from the analysis of threat perceptions and the clusters emerging from the analysis of emotional experiences: Groups seen as similar in the patterns of threats they pose were also seen as similar in the patterns of emotions they elicited. Indeed, the only difference between the two cluster analyses involves the movement of Asian Americans: In the threat analysis, Asian Americans clustered with Native Americans (Cluster 4) because of the perception that these two groups both hold values inconsistent with mainstream American values. In the emotions analysis, Asian Americans clustered with European Americans and nonfundamentalist Christians because of the relatively little threat-related affect elicited by these groups. Aside from this single change, however, the two cluster solutions, derived from analyses of different judgments, are strikingly similar. The probability of observing a perfect replication with all nine groups considered in the calculation, merely by chance, is .00006. We adjusted this value to account for the "defection" by the single group (i.e., Asian Americans); the probability of observing this slightly imperfect match between the two cluster solutions merely by chance remains a very small .0003.[10] In sum, groups that clustered together on perceived threat also (nearly perfectly) clustered together on elicited emotions, thereby providing further support for Hypothesis 5.

Discussion

We derived five general hypotheses from our sociofunctional analysis of intragroup and intergroup relations and tested them by examining European American participants' reactions to a variety of ethnic, religious, and ideologically oriented groups encountered frequently within the United States. As predicted, (a) different groups can evoke different profiles of emotions; (b) prejudice, as traditionally measured, can obscure the rich texture of these emotional experiences; (c) different groups are often believed to pose different profiles of threat to one's in-group; and (d) measures of general threat can mask the rich texture of these threat perceptions. We believe these data are the first to provide straightforward empirical support for Hypotheses 2 and 4.

Two sets of analyses also support our fifth hypothesis—that emotional experience arises systematically from threat perception: (a) The perception of particular threats predicted the experience of functionally associated emotions, and (b) groups that elicited similar threat profiles also elicited similar emotion profiles. Although each statistical technique has its own limitations, the cumulative evidence from these analyses offers strong support for Hypothesis 5. Of course, a stronger causal test of Hypothesis 5 is impossible given the correlational nature of our data and participants' preexisting feelings toward and beliefs about the real-world groups we selected. A more rigorous test would require participants to respond to novel or artificial groups about which we could systematically manipulate specific patterns of threats and subsequently measure patterns of emotional response.[11]

Contributions of the Present Data

Our data illustrate quite clearly that the traditional operationalization of prejudice—as a general attitude—can obscure the rich-

[10] Because we assign causal priority to perceived threat, we wanted to calculate the probability of perfectly replicating the five-cluster solution on the basis of threat ratings (as shown in the left side of Table 8) in the emotion cluster analyses. After determining the probability of replicating each individual cluster, we calculated the product of these individual probabilities to obtain the probability of a perfect match between the five-cluster threat solution and an emotion cluster solution. We calculated this probability to be .00006. Because Asian Americans were the only group to "move" clusters from our threat cluster solution to our emotion cluster solution, we recalculated this probability without Asian Americans. For this probability of perfect replication with only the eight remaining groups, we obtained a value of .0003. Information on these calculations is available from the authors.

[11] We are currently collecting such experimental data.

ness of emotional experience that groups elicit from others: People do not merely experience evaluative valence when encountering members of groups but instead experience discrete emotions. Moreover, as our threat and emotion profiles make clear, groups cannot be simply characterized as posing one particular threat or as eliciting one particular emotion. Rather, groups are seen to pose multiple threats and to elicit a variety of emotions, often in interesting combinations. In all, then, the negative implications of adhering to the traditional view of prejudice may be substantial.

Just as emotion profiles varied across groups, so did threat profiles. The current data thus also suggest a complement to the traditional view of stereotype as trait. Specifically, the sociofunctional approach presumes that the most important stereotypical knowledge should be knowledge that is relevant to the threats and opportunities the out-group provides for the in-group. Indeed, we suspect that most stereotypical knowledge can usefully be framed in terms of the stable beliefs about the threats and opportunities groups are seen to pose. That is, particular groups are stereotypically characterized as lazy because they are perceived to contribute less than their fair share, as aggressive because they are perceived to threaten physical safety, and so on.

More generally, we should note the uniqueness of the data we report here. In terms of affect, we have gathered data about a wide range of emotional reactions people have toward a variety of groups. Although a few others have assessed such a range of emotions, they have mitigated somewhat the value of doing so by aggregating over them (e.g., Brewer & Alexander, 2002; Dijker, 1987; Esses et al., 1993; Fiske et al., 2002). In terms of beliefs, we have begun to document a wide variety of threats that may be stereotypically linked to a variety of groups well known within the United States; to our knowledge, no similar data set exists. Because we have maintained the discrete nature of the assessed emotions and threats, other researchers testing hypotheses of intergroup affect and threat gain access to a useful, rich set of data. Beyond their usefulness for testing our hypotheses, then, these data should also provide researchers with textured descriptive data about how (at least some) people view and feel toward a range of different groups.

We acknowledge, of course, that the reactions of our European American university students to specific groups will not correspond perfectly with the reactions of others in different places and at other times. The threats, and resultant emotional reactions, that members of a particular group associate with another group should emerge from the functional relationship between the two groups as well as associated sociohistorical factors (e.g., Brewer & Alexander, 2002; Fiske et al., 2002). Thus, the current sample should represent well the emotional and stereotypical content held by other samples only to the extent they share similar functional relationships with the groups we have explored here. To the extent, however, that other samples have different functional relationships with these target groups, they should form different threat profiles and experience a different configuration of emotions. For example, because African American and Mexican American respondents differ in the threats they see European Americans posing to their own groups, they should also differ in their emotional reactions to European Americans—and they do (Cottrell & Neuberg, 2003).

Note, however, that such variation across perceiver samples in the specific threat perceptions and feelings evoked by target groups does not imply that these samples will exhibit different mappings between specific threats and specific emotions: Regardless of sample, we expect that particular profiles of emotional experience (e.g., those dominated by fear) will emerge systematically from conceptually relevant profiles of threat (i.e., those dominated by perceived threat to physical safety). In a similar vein, individuals who differ from one another in their inclinations toward particular threat appraisals (e.g., individual differences in perceived vulnerability to disease) should differ from one another in the particular intergroup emotions they typically experience (e.g., disgust; see Schaller, Park, & Faulkner, 2003).

A careful look at the emotion profile for Asian Americans reveals a potentially interesting discovery: Our European American participants reported significant general negative prejudice toward Asian Americans but little or no specific threat-related emotions. Across at least four data sets collected by our lab, we have consistently found a similar affect profile for Asian Americans (although slight envy emerges in some samples). This anomaly may be the result of simple and relatively uninteresting causes. In particular, we might surmise that reports of envy toward Asian Americans could appear unjustified or "unsportsmanlike" in a society that so values meritocracy. That is, Americans may tend to view Asian American successes as deserved achievements and thus may be reluctant to admit to or report feeling envious of them. Alternatively, it may be that the high status accorded to Asian Americans may be identity threatening, leading individuals to experience specific emotions other than those explored here, such as *schadenfreude* (pleasure in another's misfortune)—an emotion potentially directed toward high-status groups that come upon hard times.[12] In all, we are intrigued by the various possibilities and encourage other researchers to explore more deeply specific feelings toward Asian Americans and other higher status groups.

Finally, because research findings lend support to the theoretical frameworks that hypothesize their existence, the current data support the usefulness of our broader sociofunctional approach. That these data may also be viewed as consistent with predictions generated from alternative frameworks does not preclude their value for the sociofunctional approach as well; we return to this point below.

Related Theoretical Perspectives

We overviewed in the introduction other research programs and perspectives that take seriously the potential roles that intergroup emotions and tangible intergroup threats play in characterizing prejudice and intergroup relations. Here, within the context of addressing several important theoretical issues, we briefly highlight some similarities and differences among these alternative, and sometimes complementary, approaches.

Specificity of Emotion, Specificity of Threat

Along with others, we propose that the traditional view of prejudice as general attitude is too gross. As our data indeed demonstrate, prejudices go beyond mere negative feelings toward groups to also reflect patterns of specific emotions—anger, fear, disgust, and the like—patterns that conventional measures of prej-

[12] We thank Naomi Ellemers for suggesting this interesting possibility.

udice mask. This recognition is important because, as reviewed above, qualitatively different emotions tend to be associated with qualitatively different actions: People have the urge to aggress against those who anger them, escape those who frighten them, and avoid close contact with those who disgust them. Researchers who thus ignore the differences in emotion profiles elicited by different groups will have great difficulty making fine-grained predictions about intergroup behavior. Of course, if one's aim is only to predict whether a group is likely to be discriminated against, in general, then a general attitude assessment may indeed be sufficient. We suspect, however, that there are important implications, theoretical and practical, of being discriminated against via attack, avoidance, or quarantine, and so we prefer the finer level distinctions.

Proponents of alternative models of intergroup affect generally share this view, although there exist some important differences in preferred level of emotion specificity. For instance, Dijker, Fiske, and their colleagues (Dijker, 1987; Dijker, Koomen, et al., 1996; Fiske et al., 1999, 2002) have used exploratory factor analyses to reduce the number of specific emotions they actually assess to a somewhat smaller set to be analyzed. We think this strategy is less than ideal, for several reasons.

First, by its very nature, exploratory analyses force data aggregation in a manner uninformed by insights from the emotions literature, which is increasingly recognizing important distinctions among the different emotions (e.g., Ekman, 1999). Second, such an aggregation strategy increases the likelihood that functionally important emotions may be artificially eliminated from investigation because of idiosyncratic features of the analysis (e.g., the other emotions judged, the criteria chosen to select factor dimensions, the relative reliabilities of the different items). Third, for the same reasons that exploratory factor analyses may lead one to omit theoretically relevant emotions, they may also lead one to overaggregate emotions. Finally, the strategy of data-driven aggregation can lead to groups being characterized as similar when they are not.

In the research we report here, we have chosen to maintain the demonstrated distinctions among potential intergroup emotions. Note that if our choice of this finer grain size were a poor one, the hypothesized differences in emotion profiles across groups would not have materialized; if contempt, for example, were the more appropriate level of analysis, then we would have observed no differences in participants' reports of anger and disgust. Participants did indeed make such differentiations, however, lending support to our chosen level of affect specificity.

We have taken a similar view when contemplating the appropriate specificity at which to consider intergroup threat. In particular, we rely on a theory-driven analysis in which distinct threats remain empirically distinguished from each other. Recall that the revised integrated threat theory (Stephan & Renfro, 2002; Stephan & Stephan, 2000) posits that four general categories of constructs—realistic threats to the in-group, symbolic threats to the in-group, realistic threats to the individual, symbolic threats to the individual—are important in intergroup relations. There is clearly some overlap in our approaches. However, in the absence of finer distinctions among threats, revised integrated threat theory will be unable to account for the observed variation in emotional responses to different groups within each umbrella category.

Alternative Appraisal Theories

The perspectives on intergroup emotions we discuss here share the assumption that different emotions emerge from different appraisals. The approaches differ, however, in their underlying appraisal frameworks. Our sociofunctional perspective proposes that perceptions of specific threats to (and opportunities for) tangible in-group resources and group structures and processes lead to specific intergroup emotions. We articulate our underlying threat-based appraisal theory in detail—see Table 2—and have tested its usefulness via multiple regression and cluster analyses. One implication of this appraisal approach is that it allows for the possibility that groups can be perceived as posing multiple threats to one's own group. This, in turn, suggests the value of examining profiles of perceived threats—a value validated by the findings reported here.

In contrast to our threat-based appraisal system, the stereotype content model and image theory look for the sources of emotional response in appraisals of the structural relationships between groups. The stereotype content model (Fiske et al., 1999, 2002) proposes that intergroup emotions result from individuals' assessments of other groups' warmth (warm vs. cold) and competence (competent vs. incompetent), which emerge from perceptions of each group's competition and status, respectively. These warmth and competence dimensions combine to form a matrix of four possible general views of other groups, and each quadrant engenders a different emotion. An implication of this framework, then, is an exclusive focus on these four emotions (admiration, envy, pity, and contempt). In addition to neglecting the common intergroup emotion of fear, then, and aggregating across anger and disgust, this view does not straightforwardly imply the usefulness of characterizing prejudices in terms of emotional profiles. Along slightly different lines, image theory (M. G. Alexander et al., 1999; Brewer & Alexander, 2002) suggests that emotional responses arise from perceptions of other groups on three dimensions: competition, status, and power. Different configurations of these appraisal dimensions produce different images of the other groups, and each image evokes unique specific emotions. Because groups are presumably represented by only one image, image theory also does not straightforwardly suggest the value of characterizing prejudices in terms of emotion profiles.

The comprehensive operating appraisal framework underlying IET (e.g., Mackie et al., 2000) has not been explicitly articulated but appears to be based on an integration of existing appraisal theories of emotion (prominently cited are Frijda, 1986; Roseman, 1984; Scherer, 1988; C. A. Smith & Ellsworth, 1985). That IET theorists have tended to focus their empirical work narrowly on individual components of their apparent appraisal framework may explain an empirical difficulty they recently encountered. Specifically, they predicted that in intergroup situations involving potential threats to personal freedoms and beliefs, participants would respond with anger toward the out-group if the in-group was relatively strong and with fear if the in-group was relatively weak; only the predicted anger reaction emerged, however (Mackie et al., 2000). In a later study, however, in which participants faced a scenario involving physical altercation, the predicted fear response was obtained (Devos et al., 2002). These findings—though not initially predicted by the IET theorists—are consistent with our threat-based appraisal framework, in which threats to physical

safety elicit fear, and obstructions of important goals elicit anger. Nonetheless, some of the similarities between our two approaches appear striking enough that we have suggested elsewhere that one might profitably view the IET and a sociofunctional perspective as complementary, with the IET nested within the broader sociofunctional approach (Neuberg & Cottrell, 2002).

Theoretical Breadth

We note one additional difference between the sociofunctional framework and the alternatives we have discussed here. Whereas these others are explicitly about prejudice, intergroup affect, or stereotype content, ours is not. The foundation of the sociofunctional framework is an understanding of the universal nature of intragroup structures and processes, and from the foundations of the developing theory, we have derived implications for intergroup affect. However, we have also derived implications for the personal characteristics and traits that people are likely to value (and devalue) for different kinds of groups, for the aspects of self that people are likely to present or manufacture in different social settings, for the kinds of social information that perceivers are especially likely to seek and attune themselves to, for the areas in which legal systems across the globe ought to be similar (or different) from one another, for commonalities (and differences) in the social teachings of different religions, and so forth. We have begun to accumulate data in several of these domains, and they are proving to be consistent with the sociofunctional approach (e.g., Cottrell & Neuberg, 2004; Cottrell, Neuberg, & Li, 2003; Neuberg & Story, 2003). The sociofunctional framework is thus broader in its scope. All else being equal, this lends some degree of advantage to it over alternative, but narrower, frameworks.

Closing Remarks

There can be little doubt that the concept of prejudice has been a useful one and will remain useful to the extent that one is primarily interested in making general predictions across a broad class of discriminatory behaviors. As with most scientific endeavors, however, the deeper one wants to probe and the more one wants to understand, the more precise and textured one's conceptual and operational tools must become. The data reported here clearly illustrate that the traditional view of prejudice—conceptualized as a general attitude and operationalized via simple evaluation items—is often too gross a tool for understanding the often highly textured nature of intergroup affect.

Moreover, we believe the sociofunctional approach is better able to account for these findings than current alternatives, none of which make the full set of predictions we have tested here. Finally, many of the currently dominant theoretical explorations of prejudice focus on process—on how prejudices are activated, how they influence cognition and action, how individual and group variables influence these processes, and so forth. By focusing on the contents of social and intergroup relations, we believe the sociofunctional approach provides an important complement to these models.

References

Alexander, M. G., Brewer, M. B., & Herrmann, R. K. (1999). Images and affect: A functional analysis of out-group stereotypes. *Journal of Personality and Social Psychology, 77,* 78–93.

Alexander, R. D. (1974). The evolution of social behavior. *Annual Review of Ecology and Systematics, 4,* 325–384.

Allport, G. W. (1954). *The nature of prejudice.* Cambridge, MA: Addison Wesley.

Barchas, P. (1986). A sociophysiological orientation to small groups. In E. Lawler (Ed.), *Advances in group processes* (Vol. 3, pp. 209–246). Greenwich, CT: JAI Press.

Blashfield, R. K., & Aldenderfer, M. S. (1988). The methods and problems of cluster analysis. In J. R. Nesselroade & R. B. Cattell (Eds.), *Handbook of multivariate experimental psychology* (pp. 447–473). New York: Plenum Press.

Branscombe, N. R., Doosje, B., & McGarty, C. (2002). Antecedents and consequences of collective guilt. In D. M. Mackie & E. R. Smith (Eds.), *From prejudice to intergroup relations: Differentiated reactions to social groups* (pp. 49–66). New York: Psychology Press.

Brewer, M. B. (1997). On the social origins of human nature. In C. McGarty & S. A. Haslam (Eds.), *The message of social psychology: Perspectives on mind in society* (pp. 54–62). Cambridge, MA: Blackwell.

Brewer, M. B. (2001). Ingroup identification and intergroup conflict: When does ingroup love become outgroup hate? In R. Ashmore, L. Jussim, & D. Wilder (Eds.), *Social identity, intergroup conflict, and conflict reduction* (pp. 17–41). New York: Oxford University Press.

Brewer, M. B., & Alexander, M. G. (2002). Intergroup emotions and images. In D. M. Mackie & E. R. Smith (Eds.), *From prejudice to intergroup relations: Differentiated reactions to social groups* (pp. 209–225). New York: Psychology Press.

Brewer, M. B., & Brown, R. (1998). Intergroup relations. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., pp. 554–594). New York: McGraw-Hill.

Brewer, M. B., & Caporael, L. R. (1990). Selfish genes vs. selfish people: Sociobiology as origin myth. *Motivation and Emotion, 14,* 237–242.

Brown, D. E. (1991). *Human universals.* New York: McGraw-Hill.

Campbell, D. T. (1982). Legal and primary-group social controls. *Journal of Social and Biological Structures, 5,* 431–438.

Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review, 97,* 19–35.

Conway, J. M., & Huffcutt, A. I. (2003). A review and evaluation of exploratory factor analysis practices in organizational research. *Organizational Research Methods, 6,* 147–168.

Cosmides, L., & Tooby, J. (2000). Evolutionary psychology and the emotions. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (pp. 91–115). New York: Guilford Press.

Cottrell, C. A., & Neuberg, S. L. (2003, February). *From patterns of threat to patterns of behavior: Capturing the complexity of intergroup interaction.* Paper presented at the annual meeting of the Society for Personality and Social Psychology, Los Angeles.

Cottrell, C. A., & Neuberg, S. L. (2004). *How do people present themselves to fellow group members? A sociofunctional analysis of valued and devalued self-presentations.* Manuscript in preparation, Arizona State University.

Cottrell, C. A., Neuberg, S. L., & Asher, T. (2004). [Threat perceptions and emotional reactions toward different groups]. Unpublished raw data, Arizona State University.

Cottrell, C. A., Neuberg, S. L., & Li, N. P. (2003, February). *What do people want in a group member? A biocultural analysis of valued and devalued characteristics.* Poster presented at the annual meeting of the Society for Personality and Social Psychology, Los Angeles.

Devine, P. G., & Elliot, A. J. (1995). Are racial stereotypes really fading? The Princeton trilogy revisited. *Personality and Social Psychology Bulletin, 11,* 1139–1150.

Devos, T., Silver, L. A., Mackie, D. M., & Smith, E. R. (2002). Experiencing intergroup emotions. In D. M. Mackie & E. R. Smith (Eds.),

From prejudice to intergroup emotions: Differentiated reactions to social groups (pp. 111–134). New York: Psychology Press.

Dijker, A. J. (1987). Emotional reactions to ethnic minorities. *European Journal of Social Psychology, 17,* 305–325.

Dijker, A. J., Kok, G., & Koomen, W. (1996). Emotional reactions to people with AIDS. *Journal of Applied Social Psychology, 26,* 731–748.

Dijker, A. J., Koomen, W., van den Heuvel, H., & Frijda, N. H. (1996). Perceived antecedents of emotional reactions in inter-ethnic relations. *British Journal of Social Psychology, 35,* 313–329.

Dunbar, R. I. M. (1988). *Primate social systems.* Ithaca, NY: Cornell University Press.

Ekman, P. (1999). Basic emotions. In T. Dalgleish & M. Power (Eds.), *The handbook of cognition and emotion* (pp. 45–60). Sussex, England: Wiley.

Ekman, P., & Davidson, R. J. (1994). *The nature of emotion: Fundamental questions.* New York: Oxford University Press.

Ekman, P., & Friesen, W. V. (1975). *Unmasking the face: A guide to recognizing emotions from facial clues.* Englewood Cliffs, NJ: Prentice Hall.

Esses, V. M., & Dovidio, J. F. (2002). The role of emotions in determining willingness to engage in intergroup contact. *Personality and Social Psychology Bulletin, 28,* 1202–1214.

Esses, V. M., Haddock, G., & Zanna, M. P. (1993). Values, stereotypes, and emotions as determinants of intergroup attitudes. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition, and stereotyping: Interactive processes in group perception* (pp. 137–166). San Diego, CA: Academic Press.

Everitt, B. S., & Dunn, G. (2001). *Applied multivariate data analysis* (2nd ed.). London: Arnold.

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods, 4,* 272–299.

Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology, 82,* 878–902.

Fiske, S. T., Xu, J., Cuddy, A. C., & Glick, P. (1999). (Dis)respecting versus (dis)liking: Status and interdependence predict ambivalent stereotypes of competence and warmth. *Journal of Social Issues, 55,* 473–491.

Frijda, N. H. (1986). *The emotions.* Cambridge, England: Cambridge University Press.

Gilbert, G. M. (1951). Stereotype persistence and change among college students. *Journal of Personality and Social Psychology, 46,* 245–254.

Haddock, G., & Zanna, M. P. (1994). Preferring "housewives" to "feminists": Categorization and the favorability of attitudes towards women. *Psychology of Women Quarterly, 18,* 25–52.

Haddock, G., Zanna, M. P., & Esses, V. M. (1993). Assessing the structure of prejudicial attitudes: The case of attitudes toward homosexuals. *Journal of Personality and Social Psychology, 65,* 1105–1118.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1992). *Multivariate data analysis* (3rd ed.). New York: Macmillan.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94,* 319–340.

Hurh, W. M., & Kim, K. C. (1989). The "success" image of Asian Americans: Its validity, and its practical and theoretical implications. *Ethnic and Racial Studies, 12,* 512–538.

Izard, C. E. (1978). *Human emotions.* New York: Plenum Press.

Izard, C. E. (1991). *The psychology of emotions.* New York: Plenum Press.

Karlins, M., Coffman, T. L., & Walters, G. (1969). On the fading of social stereotypes: Studies in three generations of college students. *Journal of Personality and Social Psychology, 13,* 1–16.

Katz, D., & Braly, K. (1933). Racial stereotypes of one hundred college students. *Journal of Abnormal and Social Psychology, 28,* 280–290.

Lazarus, R. S. (1991). *Emotion and adaptation.* New York: Oxford University Press.

Leakey, R. E. (1978). *People of the lake: Mankind and its beginnings.* New York: Avon.

Leakey, R. E., & Lewin, R. (1977). *Origins: What new discoveries reveal about the emergence of our species and its possible future.* New York: Dutton.

LeVine, R. A., & Campbell, D. T. (1972). *Ethnocentrism: Theories of conflict, ethnic attitudes and group behavior.* New York: Wiley.

Lewis, M. (1993). Self-conscious emotions: Embarrassment, pride, shame, and guilt. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions* (pp. 563–573). New York: Guilford Press.

Lickel, B., Hamilton, D. L., Wieczorkowska, G., Lewis, A., Sherman, S. J., & Uhles, A. N. (2000). Varieties of groups and the perception of group entitativity. *Journal of Personality and Social Psychology, 78,* 223–246.

Lickel, B., Schmader, T., & Barquissau, M. (2004). The evocation of moral emotions in intergroup contexts: The distinction between collective guilt and collective shame. In N. R. Branscombe & B. Doosje (Eds.), *Collective guilt: International perspectives* (pp. 35–55). New York: Cambridge University Press.

Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology, 79,* 602–616.

Mackie, D. M., & Smith, E. R. (Eds.). (2002). *From prejudice to intergroup emotions: Differentiated reactions to social groups.* New York: Psychology Press.

Madon, S., Guyll, M., Aboufadel, K., Montiel, E., Smith, A., Palumbo, P., & Jussim, J. (2001). Ethnic and national stereotypes: The Princeton trilogy revisited and revised. *Personality and Social Psychology Bulletin, 27,* 996–1010.

Nesse, R. M. (1990). Evolutionary explanations of emotions. *Human Nature, 1,* 261–289.

Neuberg, S. L., & Cottrell, C. A. (2002). Intergroup emotions: A sociofunctional approach. In D. M. Mackie & E. R. Smith (Eds.), *From prejudice to intergroup relations: Differentiated reactions to social groups* (pp. 265–283). New York: Psychology Press.

Neuberg, S. L., Smith, D. M., & Asher, T. (2000). Why people stigmatize: Toward a biocultural framework. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 31–61). New York: Guilford Press.

Neuberg, S. L., & Story, P. (2003). [Cross-religion similarities in social structures and processes: A test of the sociofunctional approach]. Unpublished raw data, Arizona State University.

Niemann, Y. F., Jennings, L., Rozelle, R. M., Baxter, J. C., & Sullivan, E. (1994). Use of free response and cluster analysis to determine stereotypes of eight groups. *Personality and Social Psychology Bulletin, 20,* 379–390.

Öhman, A. (1993). Fear and anxiety as emotional phenomena: Clinical phenomenology, evolutionary perspectives, and information processing mechanisms. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions* (pp. 511–536). New York: Guilford Press.

Parrott, W. G. (1991). The emotional experiences of envy and jealousy. In P. Salovey (Ed.), *The psychology of jealousy and envy* (pp. 3–30). New York: Guilford Press.

Plutchik, R. (1980). *Emotion: A psychoevolutionary synthesis.* New York: Harper & Row.

Plutchik, R. (2003). *Emotions and life: Perspectives from psychology, biology, and evolution.* Washington, DC: American Psychological Association.

Richerson, P., & Boyd, R. (1995, January). *The evolution of human hypersociality.* Paper presented at the Ringberg Castle Symposium on Ideology, Warfare and Indoctrinability, Ringberg, Germany.

Roseman, I. J. (1984). Cognitive determinants of emotions: A structural theory. In P. Shaver (Ed.), *Review of personality and social psychology:*

Emotions, relationships, and health (pp. 11–36). Beverly Hills, CA: Sage.

Rozin, P., Haidt, J., & McCauley, C. R. (1993). Disgust. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions* (pp. 575–594). New York: Guilford Press.

Schaller, M., & Neuberg, S. L. (2004). *The nature in prejudice(s).* Manuscript submitted for publication.

Schaller, M., Park, J. H., & Faulkner, J. (2003). Prehistoric dangers and contemporary prejudices. *European Review of Social Psychology, 14,* 105–137.

Scherer, K. R. (1988). Criteria for emotion-antecedent appraisal: A review. In V. Hamilton, G. H. Bower, N. H. Frijda (Eds.), *Cognitive perspectives on emotion and motivation* (pp. 89–126). Norwell, MA: Kluwer Academic.

Shaver, P. R., Hazan, C., & Bradshaw, D. (1988). Love as attachment: The integration of three behavioral systems. In R. J. Sternberg & M. Barnes (Eds.), *The anatomy of love* (pp. 68–98). New Haven, CT: Yale University Press.

Sherif, M. (1966). *In common predicament: Social psychology of intergroup conflict and cooperation.* Boston: Houghton Mifflin.

Simon, H. A. (1967). Motivational and emotional controls of cognition. *Psychological Review, 74,* 29–39.

Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology, 48,* 813–838.

Smith, E. R. (1993). Social identity and social emotions: Toward new conceptualizations of prejudice. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition, and stereotyping: Interactive processes in group perception* (pp. 297–315). San Diego, CA: Academic Press.

Smith, E. R. (1999). Affective and cognitive implications of a group becoming a part of the self: New models of prejudice and of the self-concept. In D. Abrams & M. A. Hogg (Eds.), *Social identity and social cognition* (pp. 183–196). Malden, MA: Blackwell.

Sober, E., & Wilson, D. S. (1998). *Unto others: The evolution and psychology of unselfish behavior.* Cambridge, MA: Harvard University Press.

Stephan, W. G., & Renfro, C. L. (2002). The role of threat in intergroup relations. In D. M. Mackie & E. R. Smith (Eds.), *From prejudice to intergroup emotions: Differentiated reactions to social groups* (pp. 191–207). New York: Psychology Press.

Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 23–45). Mahwah, NJ: Erlbaum.

Tooby, J., & Cosmides, L. (1990). The past explains the present: Emotional adaptations and the structure of ancestral environments. *Ethology and Sociobiology, 11,* 375–424.

Trivers, R. L. (1971). The evolution of reciprocal altruism. *Quarterly Review of Biology, 46,* 35–37.

Weiner, B., Perry, R., & Magnusson, J. (1988). An attributional analysis of reactions to stigmas. *Journal of Personality and Social Psychology, 55,* 738–748.

Wilson, D. S., & Sober, E. (1994). Reintroducing group selection to the human behavioral sciences. *Behavioral and Brain Sciences, 17,* 585–654.

Yee, A. H. (1992). Asians as stereotypes and students: Misperceptions that persist. *Educational Psychology Review, 4,* 95–132.

Received January 9, 2004
Revision received August 3, 2004
Accepted September 15, 2004 ■

ORDER FORM

Start my 2005 subscription to ***Journal of Personality and Social Psychology***! ISSN: 0022-3514

___ $196.00, APA MEMBER/AFFILIATE _____
___ $401.00, INDIVIDUAL NONMEMBER _____
___ $1,150.00, INSTITUTION _____
In DC add 5.75% / In MD add 5% sales tax _____
TOTAL AMOUNT ENCLOSED $ _____

Subscription orders must be prepaid. (Subscriptions are on a calendar year basis only.) Allow 4-6 weeks for delivery of the first issue. Call for international subscription rates.

AMERICAN PSYCHOLOGICAL ASSOCIATION

SEND THIS ORDER FORM TO:
American Psychological Association
Subscriptions
750 First Street, NE
Washington, DC 20002-4242

Or call **(800) 374-2721**, fax **(202) 336-5568**.
TDD/TTY **(202) 336-6123**.
For subscription information, e-mail:
subscriptions@apa.org

◯ **Send me a FREE Sample Issue**
◯ **Check enclosed** (make payable to APA)
Charge my: ◯ VISA ◯ MasterCard ◯ American Express

Cardholder Name _____
Card No. _____ Exp. Date _____
_____
Signature (Required for Charge)

BILLING ADDRESS:
Street _____
City _____ State _____ Zip _____
Daytime Phone _____
E-mail _____

SHIP TO:
Name _____
Address _____
_____
City _____ State _____ Zip _____
APA Member # _____ *PSPA15*