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# The BIAS Map: Behaviors From Intergroup Affect and Stereotypes

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In the present research, consisting of 2 correlational studies ($N = 616$) including a representative U.S. sample and 2 experiments ($N = 350$), the authors investigated how stereotypes and emotions shape behavioral tendencies toward groups, offering convergent support for the behaviors from intergroup affect and stereotypes (BIAS) map framework. Warmth stereotypes determine active behavioral tendencies, attenuating active harm (harassing) and eliciting active facilitation (helping). Competence stereotypes determine passive behavioral tendencies, attenuating passive harm (neglecting) and eliciting passive facilitation (associating). Admired groups (warm, competent) elicit both facilitation tendencies; hated groups (cold, incompetent) elicit both harm tendencies. Envied groups (competent, cold) elicit passive facilitation but active harm; pitied groups (warm, incompetent) elicit active facilitation but passive harm. Emotions predict behavioral tendencies more strongly than stereotypes do and usually mediate stereotype-to-behavioral-tendency links.

*Keywords:* stereotypes, emotions, discrimination, competence, warmth

> Discrimination leads to all sorts of curious patterns. (Allport, 1954, p. 55)

Allport (1954) noted that groups can be discriminated against in quite different ways, but did not provide a theoretical rationale. Here, we differentiate types of discriminatory behaviors, as outcomes of competence–warmth stereotypes and intergroup emotions, by combining various theories and findings with a model of stereotype content (Fiske, Cuddy, Glick, & Xu, 2002) to predict specific intergroup behaviors. Both correlational and experimental investigations test this new framework, which predicts four classes of discriminatory behavioral tendencies along two dimensions (active–passive and facilitative–harmful). The proposed behaviors from intergroup affect and stereotypes (BIAS) map systematically links discriminatory behavioral tendencies to the contents of group stereotypes and emotions, as rooted in structural components of intergroup relations.

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## An Integrative Foundation

In this research, we aim to integrate several principles derived from existing intergroup bias theory. Consistent with the tripartite view of attitudes, bias has been conceptualized as comprising three components—cognitive (stereotypes), affective (emotional prejudices), and behavioral (discrimination; Esses & Dovidio, 2002; Fiske, 1998). Prior work on the relevant functional, motivational, and social-cognitive processes suggests three interrelated principles.

First, biases vary qualitatively across groups and situations, often including both negative and subjectively positive responses (see Mackie & Smith, 2002, for examples). Several recent approaches illustrate this principle. In Cottrell and Neuberg's (2005) sociofunctional approach, different groups (e.g., gay men vs. Mexican Americans) elicit different perceived threats (e.g., to health vs. property), which evoke functionally relevant, distinct emotions (e.g., respectively, disgust and pity vs. fear and anger; see also Esses, Dovidio, Jackson, & Armstrong, 2001; Stephan & Stephan, 2000). Intergroup emotions theory (IET; Mackie, Devos, & Smith, 2000) traces group-based emotions (e.g., anger) and action tendencies (e.g., offensive tendencies) to situational appraisals of potential harm or benefit. Alexander, Brewer, and Hermann's (1999) functional model suggests that appraisals of other groups' goal compatibility, relative status, and relative capacity to attain goals combine to elicit specific behavioral inclinations, emotions, and outgroup images. The stereotype content model (SCM; Fiske, Cuddy, Glick, & Xu, 2002; Fiske, Xu, Cuddy, & Glick, 1999) posits that competence and warmth stereotypes respectively stem from the perceived social status and competitiveness of the target group and lead to distinct intergroup emotions (admiration, contempt, envy, and pity).

Second, specific social situations synchronize the cognitive, affective, and behavioral components of bias. For instance, ap-

praisal theories of emotions link cognitive appraisals to discrete interpersonal (e.g., Frijda, Kuipers, & ter Schure, 1989) and intergroup emotions (Mackie et al., 2000). Cognitive appraisals assess the implications of others' behavior for the self: Will this hurt or help me (Lazarus & Folkman, 1984)? In turn, discrete emotions elicit specific behavioral inclinations adapted to deal with the potential threat (Frijda et al., 1989; Roseman, Wiest, & Swartz, 1994). IET, an appraisal-based approach, suggests that when ingroup identification is salient, appraisals of an outgroup lead to distinct emotions. For example, appraising the outgroup as weaker elicits anger and offensive tendencies (Mackie et al., 2000).

Third, compared with cognitions, emotions more strongly and directly relate to behavior. Emotion theorists have long argued for the primacy of affect as preceding and motivating both cognition and behavior (see Zajonc, 1998, for a review). Indeed, affect appears superior to stereotypes in predicting both discrimination and intent (e.g., Dovidio, Brigham, Johnson, & Gaertner, 1996; Schütz & Six, 1996; Talaska, Fiske, & Chaiken, in press). For example, general affective reactions to national, ethnic, and religious groups better predicted social distance than did stereotypes (Stangor, Sullivan, & Ford, 1991). Similarly, focusing on emotions (more than focusing on thoughts) while viewing an antiracism video increased willingness for contact with Black people (Esses & Dovidio, 2002). Moreover, affect appears to mediate the effect of cognitions on behaviors, a view supported by appraisal theories of emotion, including IET, as reflected in their cognitive appraisal → emotion → behavioral intention sequence (Frijda et al., 1989; Mackie et al., 2000; Roseman et al., 1994).

Building on these three principles, the BIAS map proposes that (a) differentiated biases, which include both negative and positive responses, will stem from social structural appraisals of groups; (b) the contents of stereotypes (i.e., cognition), emotions (i.e., affect), and discriminatory tendencies (i.e., behavior) will coordinate in systematic, functional, and predictable ways; and (c) emotions will more strongly and directly predict behavioral tendencies than will stereotypes. Although existing theory offers hope for predicting behaviors, no previous work specifically links dimensions of specific stereotypes, discrete emotions, and behavioral tendencies, the aim of the present research.

Our approach differs in significant ways. First, it provides theoretical and empirical support for the importance of specific stereotype contents, which result from perceived structural relations, in predicting behavioral tendencies. Many of the existing approaches neglect this component, moving directly from the cognitive appraisal of the structural relation (as a single variable) to the emotion (Cottrell & Neuberg, 2005) or from the emotion to the action tendency (Mackie et al., 2000). Second, the BIAS map identifies theoretically supported underlying dimensions of behavioral tendencies. Existing work has either tested only one class of behaviors, such as intergroup contact or policy preferences (e.g., Esses & Dovidio, 2002; Stangor et al., 1991), or has experimentally tested only two classes of behaviors along one dimension (e.g., Mackie et al., 2000). We attempt to integrate that previous work in one framework.

## The SCM

The proposed BIAS map evolved from the SCM (Fiske, Cuddy, Glick, & Xu, 2002; Fiske et al., 1999), which diverges from other theories of differentiated biases (reviewed above) in its emphasis on underlying trait dimensions and its focus on ambivalent stereotypes and emotions. Based on the premise that different traits are processed in markedly different ways (Rothbart & Park, 1986) and lead to dramatically different outcomes (Wojciszke, 2005), the SCM focuses on the two trait dimensions, warmth (e.g., warm, sincere) and competence (e.g., capable, competent), that consistently emerge as the two central dimensions of social perception, from impressions of individuals (Fiske, Cuddy, & Glick, 2007; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005; Rosenberg, Nelson, & Vivekananthan, 1968; Wojciszke, 2005; Wojciszke, Bazinska, & Jaworski, 1998) to stereotypes of specific social groups (e.g., Clausell & Fiske, 2005; Cuddy, Fiske, & Glick, 2004; Cuddy, Norton, & Fiske, 2005; Eckes, 2002; Glick, 2002; Lin, Kwan, Cheung, & Fiske, 2005; Phalet & Poppe, 1997; Yzerbyt, Provost, & Corneille, 2005). The SCM proposes that warmth and competence stereotypes respectively stem from appraisals of the (a) potential harm or benefit of the target group's goals and (b) degree to which the group can effectively enact those goals. Groups viewed as competitors are stereotyped as lacking warmth, whereas groups viewed as cooperative are stereotyped as warm; groups viewed as high status are stereotyped as competent, whereas groups viewed as low status are not. These relationships have been replicated in diverse U.S. samples (Fiske, Cuddy, Glick, & Xu, 2002) and over a dozen international samples (Cuddy et al., 2006; Eckes, 2002; Fiske & Cuddy, 2006), with widely varied target groups, such as occupations, nationalities, races, socioeconomic groups, religions, and gender subtypes.

From these locations defined by stereotypic high versus low warmth and competence, the SCM identifies four resulting emotions: admiration, contempt, envy, and pity (Fiske, Cuddy, & Glick, 2002; Fiske, Cuddy, Glick, & Xu, 2002). Four types of interpersonal social comparisons (Smith, 2000) and related outcome attributions (e.g., Weiner, 2005) generate these four emotional responses. Upward assimilative social comparisons—to groups stereotyped as warm and competent (e.g., ingroups)—elicit admiration and pride (Fiske, Cuddy, Glick, & Xu, 2002), emotions linked to dispositional attributions (i.e., deservingness) for another's positive outcome (Weiner, 2005). Downward contrastive comparisons—to groups stereotyped as incompetent and cold—elicit contempt and disgust (e.g., poor people; Fiske, Cuddy, Glick, & Xu, 2002; Dijker, Koomen, van den Heuvel, & Frijda, 1996), emotions linked to dispositional attributions (i.e., deservingness) for another's negative outcome (Rozin, Lowery, Imada, & Haidt, 1999). Upward contrastive comparisons—to groups stereotyped as competent but not warm (e.g., Asians, Fiske, Cuddy, Glick, & Xu, 2002; Lin et al., 2005; e.g., Jews, Fiske, Cuddy, Glick, & Xu, 2002; Glick, 2002, 2005)—elicit envy, an emotion linked to situational attributions (i.e., undeservingness) for another's superior outcome (Smith, Parrott, Ozer, & Moniz, 1994). Downward assimilative comparisons—to groups stereotyped as warm but not competent—elicit pity (e.g., the elderly; Cuddy & Fiske, 2002; Cuddy et al., 2005; Fiske, Cuddy, Glick, & Xu, 2002), an emotion linked to situational attributions (i.e., undeservingness) for another's negative outcome (Weiner, 2005).

## The Present Research: From the SCM to the BIAS Map

By identifying and mapping the types of discriminatory behaviors that result from each combination of stereotypic high versus

low competence and warmth (e.g., low-competence/high-warmth) and its corresponding emotion (e.g., pity), the BIAS map picks up where the SCM ends, integrating existing theory and findings along the way.

### *Identifying Dimensions of Discriminatory Behaviors*

Past work has suggested that two dimensions capture a wide range of intergroup behaviors: Active–passive concerns intensity; facilitation–harm concerns valence. The active–passive distinction runs through various areas of psychology; behaviors tend to be enacted with relatively more or less effort, directness, engagement, intent, and intensity. This dimension distinguishes more overt and effortful intergroup behaviors, such as harassment, from more subtle types that involve less exertion, such as neglect. Active behaviors act either for or against the group; passive behaviors act either with or without the group, but they do so incidentally and with less effort, directness, engagement, and intensity. The active–passive dimension classifies a range of interpersonal behavior: aggression (Buss, 1961), romantic relationship behaviors (Sinclair & Fehr, 2005), leadership styles (Eagly, Johannesen-Schmidt, & van Engen, 2003), and minority social influence (Kerr, 2002). Ayduk, May, Downey and Higgins (2003) described active behaviors as direct, explicit, overt, confrontational, intense, and high risk, in contrast to passive behaviors, which are indirect, covert, less intense, and avoidant. Passive does not imply a completely inert state (which would make passive behavior an oxymoron); rather, passive in psychology often describes behaviors that require less effort, direction, and intention (e.g., passive aggression) relative to behaviors that are unambiguously active and goal directed (e.g., active aggression).

For the intergroup domain, we define *active behaviors* as those that are conducted with directed effort to overtly affect the target group; they act for or against the target group. We define *passive behaviors* as those that are conducted or experienced with less directed effort but still have repercussions for the outgroup; they act with or without the target group. Passive behaviors may reflect a less deliberate or obvious intention on the part of an actor to bring about a specific outcome but can constitute consequential forms of discrimination (e.g., passive segregation, failure to hire members of a specific group, neglecting an outgroup member's welfare, not providing service). On the positive side, passive behaviors represent noncommittal rapprochement, as when prejudiced people "go along to get along," patronize businesses owned by disliked outgroups, or tolerate but neither object to nor endorse the outgroup's presence.

Another frequent distinction concerns the valence of behavior as determined by its intended effect on others. We refer to this second dimension as facilitation–harm. This dimension is basic to distinguishing prosocial and helping behavior from antisocial and aggressive behavior (see Batson, 1998 and Geen, 1998 for reviews). Similarly, interdependence theorists focus on how social behavior facilitates or impedes others' goals (e.g., Thibaut & Kelley, 1959). In the intergroup context, we define *facilitation–harm* as follows: Facilitation leads to ostensibly favorable outcomes or gains for groups; harm leads to detrimental outcomes or losses for groups. Thus, we consider four classes of behaviors, along two bipolar dimensions:

In active facilitation (i.e., acting for), one explicitly aims to benefit a group. Interpersonally, these behaviors include helping, assisting, or defending others (e.g., opening a door for someone). Institutionally, these behaviors include assistance programs for the needy, corporate charitable giving, progressive tax codes, and antidiscrimination policies.

In active harm (i.e., acting against), one explicitly intends to hurt a group and its interests. Verbal harassment, sexual harassment, bullying, and hate crimes all constitute interpersonal active harm. Institutionally, active harm can range from discriminatory policies to legalized segregation to mass internment (e.g., Japanese Americans during World War II) to genocide.

In passive facilitation (i.e., acting with), one accepts obligatory association or convenient cooperation with a group. Such behavior is passive because contact is not desired but merely tolerated in the service of other goals; facilitation of the group is a mere by-product. Interpersonal examples include hiring the services of an outgroup member (e.g., as a domestic) or choosing to work with a member of a group assumed to be smart (e.g., an Asian American) on a team project. Institutionally, realpolitik cooperation with a disliked regime illustrates passive facilitation. Passive facilitation acts with the group for one's own purposes but simultaneously benefits the other group as a tolerated by-product.

In passive harm (i.e., acting without), one demeans or distances other groups by diminishing their social worth through excluding, ignoring, or neglecting. Relational or social aggression (e.g., Crick & Grotpeter, 1995) and passive negative coping (e.g., withdrawal of social support; Ayduk et al., 2003) are related concepts. Interpersonal passive harm includes avoiding eye contact, being dismissive, or ignoring outgroup members. Institutionally, passive harm involves disregarding the needs of some groups or limiting access to necessary resources such as education, housing, and healthcare. In passive harm, one acts without the group, denying its existence, harming its members by omission of normal human recognition.

Three hypotheses specify how competence–warmth stereotypes and their corresponding social emotions might predict the four classes of behavioral tendencies.

### *Hypothesis 1: Stereotypes → Behaviors*

Because of its apparent primacy perception of others (reviewed below), we hypothesized that the warmth dimension would predict active behaviors, both harmful and facilitative, whereas the competence dimension would predict passive behaviors, both harmful and facilitative. Warmth stereotypes theoretically derive from the inferred goals of the target group and the potential benefits or harms caused by these goals (Wojciszke, 2005). The SCM supports this link: Competitive or exploitative groups (whose goals are perceived as harmful) are stereotyped as lacking warmth, whereas noncompetitive groups (perceived as not having harmful goals) are stereotyped as possessing warmth. In social interactions, negative warmth information (e.g., dishonest, insincere, unkind) is weighted far more heavily than negative competence information (e.g., incapable, incompetent, unintelligent; Kubicka-Daab, 1989; Wojciszke, Brycz, & Borkenau, 1993). Perceivers are more interested in learning warmth-related traits, which better predict their evaluations of others, than competence-related traits (Wojciszke et

al., 1998). Moreover, warmth traits are judged more quickly than competence traits (Willis & Todorov, 2006).

The primacy of the warmth dimension may occur because of potentially greater costs in dealing with someone who is not warm versus not competent (Wojciszke, 2005). Cognitively, negative warmth information is seen as more diagnostic because people who are not friendly are more dangerous to others than are people who are not competent, who are more dangerous to themselves (Reeder, 1993). Motivationally, being warm is other-profitable, whereas being competent is self-profitable (Peeters, 1983). Thus, we hypothesized that warmth information creates a relatively urgent need to react, leading to active behavioral tendencies that act for (i.e., active facilitation) or against (i.e., active harm) the other. We predicted that groups stereotyped as warm will elicit active facilitation; groups stereotyped as lacking warmth will elicit active harm.

Perceived competence theoretically derives from the inferred efficacy with which the target's goals are enacted (Wojciszke, 2005). The SCM's parallel analysis shows that groups high in status (i.e., having the resources or power to carry out goals) are stereotyped as competent, whereas low-status groups are stereotyped as lacking competence. We hypothesized that in contrast to the exigency of warmth information in person perception, competence information is less pressing because it is less self-relevant or ingroup relevant. As noted, perceivers are less interested in and influenced by competence (vs. warmth) information (Wojciszke et al., 1998). Compared with inferred warmth, inferred competence does not create as immediate a need to react, thus cuing more passive behaviors, which involve acting with (i.e., passive facilitation) or without (i.e., passive harm) others. We predicted that groups perceived as competent would elicit passive facilitation, whereas groups perceived as incompetent would elicit passive harm.

In sum, the first hypothesis states that the warmth dimension of stereotypes will predict the valence (i.e., facilitation vs. harm) of active behaviors and the competence dimension of stereotypes would predict the valence of passive behaviors. Specifically, we predicted that warmth stereotypes will elicit active facilitation (e.g., helping) and prevent active harm (e.g., attacking) and that competence stereotypes would elicit passive facilitation (e.g., associating with) and prevent passive harm (e.g., excluding). Each combination of competence and warmth stereotypes thus relates to a distinct pattern of behavioral tendencies (see Figure 1).

### *Hypothesis 2: Emotions → Behaviors*

Assuming that cognitions cue behaviors and emotions activate them (Frijda et al., 1989), we hypothesized that the distinct emotion linked to each SCM combination of competence–warmth stereotypes would also predict the hypothesized behavioral tendencies (see Figure 1). A distinct emotion links to each combination of high–low competence–warmth stereotypes (Fiske, Cuddy, Glick, & Xu, 2002; Study 4), so we hypothesized that, as depicted in Figure 1, two emotions will predict each behavioral tendency. These specific links are supported by theories that conceptualize discrete emotions as outcomes of social comparisons (e.g., Smith, 2000), outcome attributions (e.g., Weiner, 2005), and cognitive appraisals (e.g., Dijker et al., 1996; Mackie et al., 2000).

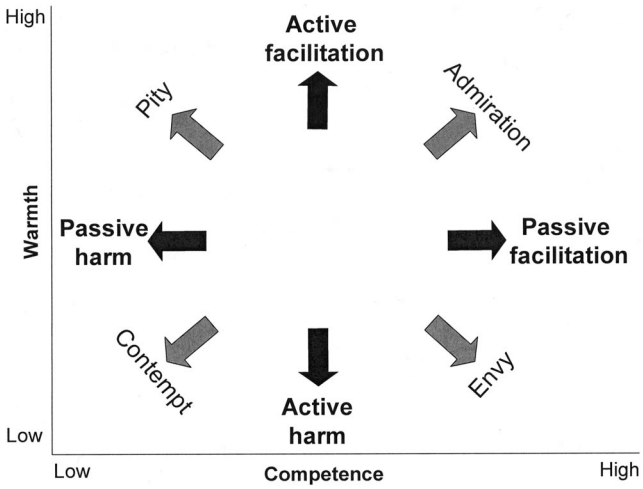


*Figure 1.* Schematic representation of behaviors from intergroup affect and stereotypes map Hypotheses 1 and 2. Competence and warmth stereotypes are represented outside the figure along the *x*- and *y*-axes, respectively. Emotions are represented by gray arrows, within the figure on diagonal axes. Behavioral tendencies are represented by black arrows within the figure on horizontal and vertical axes.

*Admiration (high-competence, high-warmth; HC-HW).* Admiration and pride—univalent, upward assimilative emotions (Smith, 2000)—are directed toward others whose positive outcomes do not detract from the self (Tesser & Collins, 1988). We hypothesized that admiration would lead to both active and passive facilitation. Admiration and pride motivate contact (Dijker et al., 1996) and relate to cooperation (Alexander et al., 1999); happiness, a linked emotion, predicts positive approach behaviors (Neuberg & Cottrell, 2002). People tend to act actively for or passively with admired others.

*Contempt (low-competence, low-warmth; LC-LW).* Contempt and disgust—univalent, downward contrastive emotions (Smith, 2000)—are targeted toward those with negative outcomes that are perceived as onset controllable (Weiner, 2005). We hypothesized that contempt would cue both active and passive harm. Contempt-related emotions elicit passively harmful actions such as demeaning paternalistic behaviors (Brewer & Alexander, 2002); neglect (Weiner, 2005); and distancing, excluding, or rejecting (Roseman et al., 1994; Rozin et al., 1999). Disgust also motivates attempts to remove a noxious stimulus from one's perceptual field, eliciting the desire to forcefully expel or obliterate the stimulus (Plutchik, as cited in Roseman et al., 1994). People tend to act actively against or passively without others who elicit contempt.

*Envy (high-competence, low-warmth; HC-LW).* Envy involves coveting another's superior outcome and comprises feelings of injustice or inferiority (Smith et al., 1994). Envy is ambivalent, involving both resentment and respect. We hypothesized that envy cues both passive facilitation and active harm. Because envy involves implicitly acknowledging that another group has outdone the ingroup, it cues cooperation that might enable the ingroup to acquire some of the coveted outcome. Envy involves begrudging admiration for the other, an ambivalent type of respect that might produce passive facilitation. Also, envied groups are scapegoated when societies experience widespread instability because envied

groups are perceived to have the ability (competence) as well as the intent to disrupt society (Glick, 2005; Staub, 1996). Scapegoating can lead to hostile acts against the envied group. People tend to act passively along with but also actively against envied others.

*Pity (low-competence, high-warmth; LC-HW).* Pity is also an ambivalent emotion, comprising both compassion and sadness. Pity results from appraising another's negative outcome as uncontrollable (Weiner, 2005). Pity elicits active facilitation and passive harm. Active facilitation includes giving help elicited by pity (Weiner, 2005). However, sympathy for the suffering can distance, not just activate help. Pity involving sadness and depression can lead to inaction, avoidance, and neglect, such as turning off an appeal to aid starving children (Green & Sedikides, 1999; Roseman et al., 1994); pity involving disrespect may lead to dismissive behaviors, such as patronizing speech and poor medical treatment directed at elderly people (e.g., Pasupathi & Lockenhoff, 2002). People tend to act actively for but also passively without pitied others.

### *Corollary of Hypotheses 1 and 2: Bias Clusters*

The first two hypotheses imply coordinated bias clusters of specific stereotypes, distinct emotions, and pairs of behavioral tendencies. Further, if the specific hypothesized links are supported, ambivalent bias clusters should emerge: Groups with ambivalent competence–warmth stereotypes (i.e., high on one, low on the other) and ambivalent emotions (i.e., envy, pity) will be targets of ambivalent patterns of intergroup behaviors—one facilitation behavior and one harm behavior. We predicted that HC-LW stereotypes would link to passive facilitation and active harm, and LC-HW stereotypes would link to active facilitation and passive harm (see Figure 1).

### *Hypothesis 3: Emotion Priority*

Consistent with the third principle presented earlier—that emotions more strongly and directly predict behaviors—Hypothesis 3 states that the relationship between emotions and behavioral tendencies will be stronger than the relationship between stereotypes and behavioral tendencies, and emotions will mediate the stereotypes → behaviors relationship.

### *Summary*

We aimed to develop and test an overarching framework for predicting differentiated types of discriminatory treatment from the contents of stereotypes and the experience of emotions, building on existing knowledge and also moving in new theoretical directions. We first developed the behavioral tendencies scales in a preliminary study. Next, we present a national correlational study and then two experiments in which we examined the hypothesized causal links. Last, we present a correlational study that investigated the roles of primary emotions (i.e., anger and fear) in the BIAS map framework.

## Preliminary Study: Developing Behavioral Tendencies Scales

We conducted a preliminary study to develop scales to measure the behavioral tendencies. Drawing from a wide range of sources (e.g., Dijker et al. 1996; Roseman et al., 1994; Weiner, 2005), we identified 31 items to represent an array of behaviors that could fall along the two dimensions of active–passive and facilitation–harm: help, avoid, follow, compete with, derogate, imitate, cooperate with, tolerate, assist, neglect, steal from, fight, demean, hinder, undermine, unite with, accept, criticize, support, exclude, attack, abide by, endure, protect, ignore, harass, associate with, lead, belittle, sabotage, and aggress against. Participants rated the same 23 groups used in prior SCM work (Fiske, Cuddy, Glick, & Xu, 2002; Studies 2 & 4): women, blue-collar workers, elderly people, homeless people, young people, Blacks, Jews, Whites, welfare recipients, Native Americans, educated people, retarded people, professionals, middle-class people, Hispanic people, poor people, students, Asians, Muslims, gay men, Christians, rich people, disabled people, and men. Groups were generated in pilot studies in which participants were asked to list salient groups in American society (Fiske, Cuddy, Glick, & Xu, 2002; pilot study).

In a classroom, 100 Princeton undergraduates (60% female, 40% male) completed the questionnaire along with several unrelated ones for $8. To avoid fatigue, participants were randomly assigned to rate 11 or 12 of 23 groups. Participants rated "how [they] think most Americans behave toward these groups," on a 5-point scale (1 = *not at all*; 5 = *extremely*).

Our hypotheses required the development of behavioral tendencies scales that worked for each group separately and also overlapped across groups. Thus, we calculated 23 principal-components factor analyses (1 per group) using direct oblimin rotation, examining all 31 response items; these yielded 4–7 factors with eigenvalues greater than 1.0. Across groups, 4 similar factors emerged consistently; these formed the scales of Active Facilitation, Active Harm, Passive Facilitation, and Passive Harm. Items that loaded onto the first factor, Passive Harm, were demean, exclude, hinder, and derogate. For the second factor, Passive Facilitation, items were cooperate with, unite with, and associate with. For the third factor, Active Harm, items were fight, attack, and sabotage. For the fourth factor, Active Facilitation, items were assist, help, and protect. Given the time constraints of a national telephone survey, we could choose only two items for each scale, so we chose two of the three items with the highest average factor loadings: help and protect for Active Facilitation; fight and attack for Active Harm; cooperate with and associate with for Passive Facilitation; and exclude and demean for Passive Harm.

## Study 1: Representative National Telephone Survey

We conducted a nationally representative, random-sample telephone survey to investigate society's perceptions of how various naturally occurring social groups are perceived and treated in the United States, testing the BIAS map's three hypotheses. We aimed to extend existing theory in several ways. First, including both active and passive and harmful and facilitative behavioral tendencies in the same study allowed us to differentiate biases more thoroughly. This made it possible to focus on groups treated ambivalently—those eliciting both harmful and facilitative responses. Second, in this study, we sought to identify bias clusters with distinctive and qualitatively different patterns of stereotyping, emotions, and behaviors. Methodologically, this study goes beyond previous research by testing the links among stereotypes, emotions, and behaviors simultaneously across a broad range of

naturally occurring social groups, which provides a unique intergroup comparative context. Other works may apply theoretically to a broad range of groups but, so far, most are empirically limited to only one or two (exceptions are Alexander et al., 1999; and Cottrell & Neuberg, 2005). Also, using a representative national sample allowed us to overcome the inherent limitations of college student samples in investigations of societal biases, including our own previous research.

## Method

*Participants.* The Princeton University Survey Research Center administered the telephone survey in the spring of 2003. The sample included English-speaking adults, 18 years of age or older, in the 48 contiguous United States, whose households included at least one telephone. The survey included nationwide random-digit dialing. Unscreened random telephone numbers in replicates of 100 were created with a method that generates a stratified sample frame of estimated telephone households from blocks of exchanges containing three or more active telephones. Checking for active telephones within a block occurred prior to the randomization of the last four digits. Phone numbers within that block were then attempted. If reached, an adult from each household was selected randomly (adult with the next birthday was requested) and interviewed. The response rate for eligible calls (e.g., residences, English-speaking, not fax, etc.) was 25%. Although this rate is low, recent evidence indicates that low response rates do not invalidate the sample's substantive accuracy (e.g., Curtin, Presser, & Singer, 2000). And, as we do here, weighting can correct demographic shortcomings. Completion rate for those who agreed to participate was 83%.

The total sample size was 571, of whom 62% were female participants and 38% were male participants, and the average age was 43.5 years ($SD = 17.6$). Most participants (77%) were White; remaining percentages were 6% Black, 9% Latino, 1.5% Asian or Pacific Islander, and 1.5% Native American. On the education measure, 7% had not finished high school; 24% had graduated from high school only; 30% had some college background; 22% were college graduates; and 13% had completed an advanced degree. The sample was 34% Protestant, 25% Catholic, 2% Jewish, 24% identified with a religion not listed, and 15% agnostic or atheist. On the annual household income measure, 24% reported less than $25,000, 31% reported $25,000–$49,999, 18% reported $50,000–$74,999, 14% reported $75,000–$99,999, 13% reported greater than $100,000. On the region measure, 20% were from the Northeast, 24% from the Midwest, 36% from the South, and 21% from the West.

Data were weighted on gender, age, education, census region, and race and ethnicity, to match census bureau estimates of the proportion of English-speaking adults, aged 18 or older, residing in the contiguous United States. The demographic weighting parameters came from a specific analysis of the most recently available Census Bureau Annual Demographic File (United States Census Bureau, 2002; March, 2002 Current Population Survey). The weights were derived with an iterative technique that simultaneously balanced the distributions of all weighting parameters. After an optimum sample-balancing solution was reached, the weights were constrained to fall within the range of 1.00 to 7.17, ensuring that individuals did not inordinately affect overall results. Because the range of weights produced an $n$ greater than the actual sample $n$, an adjusted weight value (0.34 to 2.43) was used in all analyses of weighted data.

*Questionnaire.* The questionnaire listed 20 U.S. social groups, chosen from previous studies (Fiske, Cuddy, Glick, & Xu, 2002, Fiske et al., 1999; Katz & Braly, 1933). We selected 5 groups likely to represent each of the four quadrants of the competence–warmth space, resulting in a total of 20 groups, because the focus of this research was documenting relationships among the BIAS map variables (as opposed to studying the contents of stereotypes of specific groups).

Each participant rated 4 of the 20 groups on 12 two-item scales (see Appendix), resulting in a total of 24 ratings per group. The scales—perceived social structure, traits, emotions, and behavioral tendencies—were, respectively, competitiveness and status (social structure), competence and warmth (stereotypes), admiration, contempt, envy, and pity (emotions), and the four behaviors—active harm, passive harm, active facilitation, and passive facilitation. All but the behavioral tendencies scales were adapted from previously used scales, and each scale included the two items with the highest average factor loadings across our previous studies (Fiske, Cuddy, Glick, & Xu, 2002, Fiske et al., 1999). The four behavioral tendencies scales came from the preliminary study. Using 5-point scales (1 = *not at all*; 5 = *extremely*), participants rated how the groups "are perceived by Americans." As before, this instruction was intended to assess perceived societal reactions and to reduce participants' social desirability concerns.

*Procedure.* Participants completed the phone-administered questionnaire in approximately 17 min. Each participant rated 4 groups on 24 items, resulting in 96 ratings per participant. After completing the social-groups questions, participants answered the demographic questions.

## Results

In our analyses, we aimed to demonstrate that combinations of competence–warmth stereotypes and related emotions are associated with differentiated patterns of behavioral tendencies. In all analyses, we used the weighted data (described above). We found no systematic, significant effects of participant sex or any other demographic variables (e.g., income, race, religion, sex). Reliabilities for the two-item scales were as follows: status $\alpha = .87$; competitiveness $\alpha = .79$; competence $\alpha = .79$; warmth $\alpha = .83$; admiration $\alpha = .80$; contempt $\alpha = .60$; envy $\alpha = .82$; pity $\alpha = .71$; active facilitation $\alpha = .60$; active harm $\alpha = .59$; passive facilitation $\alpha = .61$; and passive harm $\alpha = .68$.

To be sure that our new emotions and behaviors items were distinct and not redundant, we conducted principal-components factor analyses using varimax rotation on the emotions and behaviors items. As in previous studies, we conducted a separate factor analysis for each group, examining the 16 emotions and behaviors items. Across groups, the emotions and behaviors consistently loaded on separate factors. Also, in every case, the two items included in the scale co-occurred more frequently than any other pairing.

First, we present correlation and regression analyses of the hypothesized relationships among (a) competence–warmth stereotypes and behavioral tendencies and (b) emotions and behavioral tendencies. These analyses also address the hypotheses that emo-

Table 1
*Correlations of Behavioral Tendencies With Stereotypes and Emotions, Study 1*

| Predictor | Behavioral tendency: Active facilitation | Active harm | Passive facilitation | Passive harm |
|---|---|---|---|---|
| | | Group level | | |
| Stereotypes | | | | |
| Competence | .08 | −.20 | **−.77**$^{***}$ | **−.68**$^{***}$ |
| Warmth | **.73**$^{***}$ | **−.55**$^{***}$ | .45$^{*}$ | −.24 |
| Emotions | | | | |
| Admiration | **.59**$^{**}$ | −.35 | **.95**$^{***}$ | −.69$^{**}$ |
| Contempt | −.63$^{**}$ | **.93**$^{***}$ | −.46$^{*}$ | **.48**$^{*}$ |
| Envy | −.06 | **.22** | **.57**$^{**}$ | −.39 |
| Pity | **.51**$^{*}$ | −.10 | −.48$^{*}$ | **.65**$^{**}$ |
| | | Participant level | | |
| Stereotypes | | | | |
| Competence | .17$^{***}$ | −.10$^{**}$ | **.64**$^{***}$ | **−.50**$^{***}$ |
| Warmth | **.47**$^{***}$ | **−.34**$^{***}$ | .53$^{***}$ | −.24$^{***}$ |
| Emotions | | | | |
| Admiration | **.49**$^{***}$ | .31$^{***}$ | **.74**$^{***}$ | −.58$^{***}$ |
| Contempt | −.24$^{***}$ | **.54**$^{***}$ | −.33$^{***}$ | **.48**$^{***}$ |
| Envy | .00 | **.21**$^{***}$ | **.43**$^{***}$ | −.25$^{***}$ |
| Pity | **.40**$^{***}$ | .00 | −.26$^{***}$ | **.41**$^{***}$ |

*Note.* Bold correlations were predicted to be significant (23 of 24 were). But 15 of 24 others were also significant, and although they were theoretically consistent, most of these other correlations were only in the participant-level analyses, which had high power (participant $df = 569$, group $df = 18$). As in previous studies (Cuddy et al., 2006; Fiske, Cuddy, Glick, & Xu, 2002; Fiske et al., 1999), perceived status correlated with competence, group-level $r = .93$, $p < .001$; participant-level $r = .83$, $p < .001$; and perceived competitiveness correlated negatively with warmth, group-level $r = -.70$, $p < .001$; participant-level $r = -.43$, $p < .001$. Opposite structure-traits correlations were not significant, as predicted.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

tions trump stereotypes in predicting behavioral tendencies and that emotions mediate stereotypes → behavioral tendencies links.

We calculated correlations two ways. At the group level, we averaged ratings across participants for each of the 20 groups and then calculated the correlation coefficients from the group means. At the participant level, we calculated correlations separately for each individual participant ($N = 571$), converted them using Fisher's $r$ to $z$, averaged them, and reverted them to $r$s. Each procedure offers an advantage and a disadvantage. The group-level procedure involves a smaller $n$ but stable means that mask participant-level variation, thus producing larger $r$s. The participant-level procedure lacks stable means but provides more power. Together, the estimates bracket the true effect size (see Table 1).[1]

*Hypothesis 1: Stereotypes → behaviors.* We hypothesized that warmth stereotypes would predict the valence of active behaviors and competence stereotypes would predict the valence of passive behaviors. As expected, warmth ratings correlated positively with active facilitation and negatively with active harm. Competence ratings correlated positively with passive facilitation and negatively with passive harm. The only unpredicted stereotypes–behaviors relationship to emerge at both the groups and participants levels was between warmth and passive facilitation. In sum, correlations support all four of the predicted stereotypes → behavioral tendencies relationships, in both group and participant analyses[2] (see Table 1).

*Hypothesis 2: Emotions → behaviors.* We hypothesized that differentiated emotions would predict distinct patterns of behavioral tendencies (Table 1). Admired groups elicited both higher active facilitation and higher passive facilitation ratings. Groups high on contempt elicited both active harm and passive harm. Envied groups elicited not only higher passive facilitation ratings but also higher active harm ratings, although the envy → active harm correlation reached significance only at the participant-level of analysis. Finally, pitied groups elicited not only higher active facilitation ratings but also higher passive harm ratings. In sum,

[1] As in previous studies (Cuddy et al., 2006; Fiske, Cuddy, Glick, & Xu, 2002, Fiske et al., 1999), in the current study, perceived status correlated with competence ratings, group-level $r = .93$, $p < .001$, participant-level $r = .83$, $p < .001$, and perceived competitiveness correlated negatively with warmth ratings, group-level $r = -.70$, $p < .001$, participant-level $r = -.43$, $p < .001$. The opposite social structure–traits correlations were not significant, as predicted.

[2] We had not hypothesized negative correlations between emotions and behavioral tendencies because emotions—the "hot" components of prejudice—are less likely to thwart than to enable a behavior. Four unpredicted negative correlations emerged; all retrospectively fit the theoretical model. Contempt inhibits both facilitation tendencies, as befits feeling repelled. Pity inhibits passive facilitation; feeling sorry makes one avoid, not associate. Admiration inhibits passive harm; one does not avoid the object of assimilative emotions.

correlations supported all eight of the specific emotions → behaviors predictions at the participant level and seven of eight at the group level.

*Hypotheses 1 and 2 corollary: Bias clusters.* To distinguish the predicted bias clusters (coordinated stereotypes, emotions, and behaviors), in the next analyses, we compared common patterns of emotions and behavioral tendencies for groups that share competence–warmth stereotypes. First, cluster analyses were used to identify the collections of groups with similar competence–warmth stereotypes, following the same analytic procedure used in our SCM studies (Cuddy et al., 2006; Fiske, Cuddy, Glick, & Xu, 2002). Results pointed to a four-cluster solution, confirming our choice of the groups to explicitly represent the four quadrants of the competence–warmth space. The clusters spread out in the two-dimensional space, in both dimensions equally (see Figure 2 for cluster solution). In focused *t* tests of a priori predictions, competence and warmth within clusters were compared, and in focused independent *t* tests, competence and warmth between clusters were compared. Results clearly confirmed the four clusters: HC-HW (e.g., middle-class), HC-LW (e.g., Asians), LC-HW (e.g., elderly), and LC-LW (e.g., welfare recipients), all $ps < .05$.

Three groups moved into clusters adjacent to their locations in previous samples (Fiske, Cuddy, Glick, & Xu, 2002; Fiske et al., 1999). For two (Black professionals, Whites), the movement reflects a shift in clustering rather than big differences in ratings (from HC-LW and HC-HW, respectively, into adjacent clusters HC-HW and HC-LW, respectively); the changes on 5-point scales were only .09–.17 (competence) and .11–.24 (warmth). The most striking difference from previous samples was the migration of housewives from the LC-HW cluster to the HC-HW cluster. Compared with previous studies (Fiske, Cuddy, Glick, & Xu, 2002; Fiske et al., 1999), housewives did not change on warmth, but gained 1.04 points on competence. Analyses did not support the most obvious explanation—that this sample was the first to represent housewives. Lacking occupation data, we compared male and female responses and found no differences on either trait. The shifting standards model provides a more likely explanation, describing how stereotypes provide references against which group members are compared (e.g., Biernat & Vescio, 2002). A woman might be subjectively judged as more financially successful than a man who objectively earns more money because women are not stereotyped as high wage-earners. Thus, competence for a housewife might shift from the more typical meaning (e.g., paid work) to the household context (e.g., child rearing).

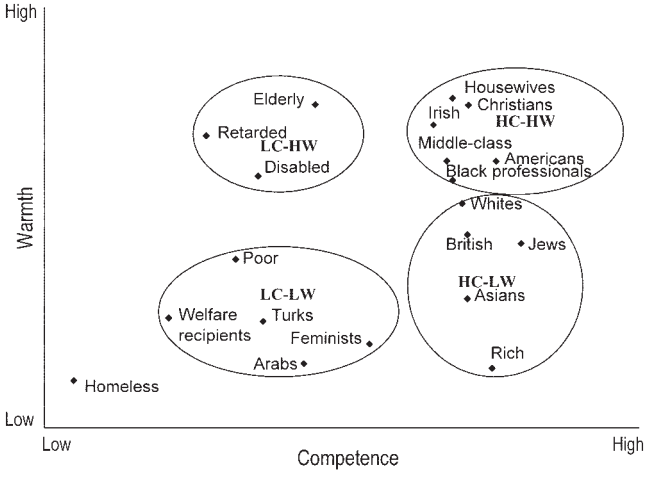


*Figure 2.* Scatter plot and cluster analysis of groups on competence and warmth ratings. HC-HW = high-competence, high-warmth; HC-LW = high-competence, low-warmth; LC-HW = low-competence, high-warmth; LC-LW = low-competence, low-warmth.

For each emotion, we used contrast analyses to compare the four clusters. In a replication of prior findings (Fiske, Cuddy, Glick, & Xu, 2002; Study 4), more admiration went to HC-HW groups ($M = 3.54$, $SD = 0.28$) than to other clusters ($M = 2.62$, $SD = 0.68$ ), $t(16) = 4.67$, $p < .001$. More contempt went to LC-LW groups ($M = 2.69$, $SD = 0.28$) than to other clusters ($M = 2.30$, $SD = 0.32$), $t(16) = 3.73$, $p < .01$. More envy went to HC-LW groups ($M = 2.76$, $SD = 0.63$) than to other groups ($M = 1.71$, $SD = 0.46$), $t(16) = 3.92$, $p < .01$. Finally, more pity went to LC-HW groups ($M = 3.31$, $SD = 0.20$) than to other clusters ($M = 2.21$, $SD = 0.39$), $t(16) = 5.09$, $p < .001$. Thus, current data replicated all of the previously established, fundamental links between competence–warmth stereotypes and emotions.

Each of the four competence–warmth stereotypes and its emotions was hypothesized to carry a unique signature of behavioral tendencies (Figure 1). First, groups stereotyped as warm were expected to receive more active facilitation than other groups. Indeed, groups in the two high-warmth clusters ($n = 9$) did differ from groups in the two low-warmth clusters ($n = 11$), $t(16) = 6.46$, $p < .001$. Groups stereotyped as lacking warmth were expected to receive more active harm than other groups, which they did, $t(16) = 2.98$, $p < .01$. (See Table 2 for means.)

We hypothesized that groups stereotyped as competent would receive more passive facilitation than other groups. As predicted, groups in the two high-competence clusters ($n = 11$) differed from groups in the two low-competence clusters ($n = 9$), $t(16) = 5.32$, $p < .001$. We also hypothesized that groups stereotyped as lacking competence would receive more passive harm than other groups, which they did, $t(16) = 3.64$, $p < .01$. In sum, supporting the Hypotheses 1–2 corollary, the four predicted bias clusters emerged.

*Hypothesis 3: Emotion priority.* Using regression analyses, we compared the relative boosts to the percentage variance explained when (a) adding the two predictor emotions to the predictor stereotype (i.e., competence or warmth) in predicting each behavioral tendency versus (b) adding the predictor stereotype to the two predictor emotions in predicting each behavioral tendency (see Figure 1 for a pictorial depiction of these hypotheses). For each behavioral tendency, adding the emotions to the models significantly improved the $R^2$ (range of improvement to $R^2 = .203–.577$, all $Fs > 10$, $ps < .001$), but adding the stereotype did not (range of improvement to $R^2 = .009–.027$).

In a series of regressions, we examined the proposed dual-mediation (via the two predictor emotions) of the effect of the predictor stereotype (i.e., competence or warmth) on each behavioral tendency by (a) regressing the behavioral tendency (the criterion) on the stereotype (the predictor), (b) regressing the two emotions (the mediators) on the stereotype, and (c) simultaneously regressing the behavioral tendency on the stereotype and the two hypothesized emotions. In all analyses, we controlled for the nonpredictor trait by including it in analyses; for example, when

Table 2
*Behavioral Tendencies Standardized Means by Competence and Warmth Stereotypes, Studies 1 and 2*

| Warmth | | | | | Competence | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Behavioral tendency | High | | Low | | Behavioral tendency | High | | Low | |
| | *M* | *SD* | *M* | *SD* | | *M* | *SD* | *M* | *SD* |
| Study 1 (measured stereotypes) | | | | | | | | | |
| Active facilitation | $.331_a$ | .82 | $-.350_b$ | .61 | Passive facilitation | $.277_a$ | .51 | $-.333_b$ | .80 |
| Active harm | $-.305_b$ | .78 | $.323_a$ | .91 | Passive harm | $-.270_b$ | .72 | $.318_a$ | .80 |
| Study 2 (manipulated stereotypes) | | | | | | | | | |
| Active facilitation | $.352_a$ | .98 | $-.371_b$ | .89 | Passive facilitation | $.345_a$ | .89 | $-.352_b$ | .99 |
| Active harm | $-.325_b$ | .97 | $.343_a$ | .92 | Passive harm | $-.310_b$ | .98 | $.292_a$ | .93 |

*Note.* Within study, within trait (i.e., warmth, competence) means not sharing a subscript differ at $p < .01$. All predicted differences are significant.

testing for mediation by contempt and pity of the effect of perceived competence on passive harm, we also included warmth as an independent variable. We calculated Sobel tests to check for full mediation. Figure 3 presents the results of these analyses.

In all cases, at least one emotion significantly mediated the direct effect of the stereotype on the behavioral tendency. For active facilitation, the pattern of results suggested that both admiration and pity mediated the direct effect of warmth (Figure 3A). For active harm, the results indicated that contempt mediated the direct effect of warmth (Figure 3B). For passive facilitation, admiration mediated the direct effect of competence (Figure 3C). For passive harm, pity mediated the direct effect of competence (Figure 3D).

In sum, as hypothesized, emotions more strongly predicted behavioral tendencies than did stereotypes, and emotions generally mediated the stereotypes → behavioral tendencies link.

### *Discussion*

Results of our national sample survey document four hypothesized patterns of discriminatory behavioral tendencies based on competence–warmth stereotypes and related emotions. These results converge with existing research in the following ways: (a) differentiated biases, which included both negative and positive responses, stemmed from appraisals of groups (e.g., Alexander et al., 1999; Cottrell & Neuberg, 2005); (b) the contents of stereotypes, emotions, and behavioral tendencies were coordinated (e.g., Mackie et al., 2000); and (c) emotions trumped stereotypes in predicting behavioral tendencies (e.g., Dovidio et al., 1996; Esses & Dovidio, 2002).

Study 1 makes several new contributions. First, the findings provide theoretical and empirical support for the significance of specific stereotype contents, namely competence and warmth, in predicting specific discriminatory behavioral tendencies, active–passive and facilitative–harmful. Groups stereotyped as possessing warmth elicited more active facilitation and less active harm than groups stereotyped as lacking warmth. Groups stereotyped as competent elicited more passive facilitation and less passive harm than groups stereotyped as lacking competence. Unexpectedly, stereotypically warm groups also elicited more passive facilitation than stereotypically low-warmth groups, a finding that we discuss in greater detail in Study 2.

Study 1 also supports the hypothesized relationships between specific positive and negative social emotions (admiration, contempt, envy, and pity) and unique patterns of intergroup behavioral intentions. This is the first study to simultaneously link these four theoretically derived emotions to specific patterns of intergroup behavioral intentions. Correlational data strongly supported seven of eight of the specific predicted links, but the envy to active harm link was significant only at the individual level of analysis. Study 4 addresses this issue.

The four combinations of competence–warmth stereotypes formed bias clusters, linking with predicted patterns of emotions and behavioral tendencies. By including positive and negative stereotypes and emotions, as well as active and passive, harmful and facilitative behavioral tendencies in the same study, we were able to investigate ambivalent patterns of bias. Indeed, the results support the hypothesized ambivalent bias clusters—those comprising mixed-valence stereotypes, emotions, and behaviors. Groups stereotyped as high on competence but low on warmth elicited envy and passive facilitation but active harm. Groups stereotyped as low on competence but high on warmth, on the other hand, elicited pity and active facilitation but passive harm.

Study 1 compared the relative strengths of stereotype and emotions in predicting intergroup behavioral tendencies. Consistent with previous research (e.g., Dovidio et al., 1996; Talaska et al., in press), in general, emotions more strongly and directly predicted behavioral tendencies than did stereotypes. Following an appraisal → emotion → behavior sequence (e.g., Mackie et al., 2000), for each behavioral tendency, at least one emotion mediated the stereotype → behavior link. However, some emotions took priority over others. Admiration fully mediated the relationship between warmth stereotypes and active facilitation and partially mediated the relationship between competence stereotypes and passive facilitation. Contempt fully mediated the relationship between warmth and active harm. And pity fully mediated the relationship between competence stereotypes and passive harm. Only envy did

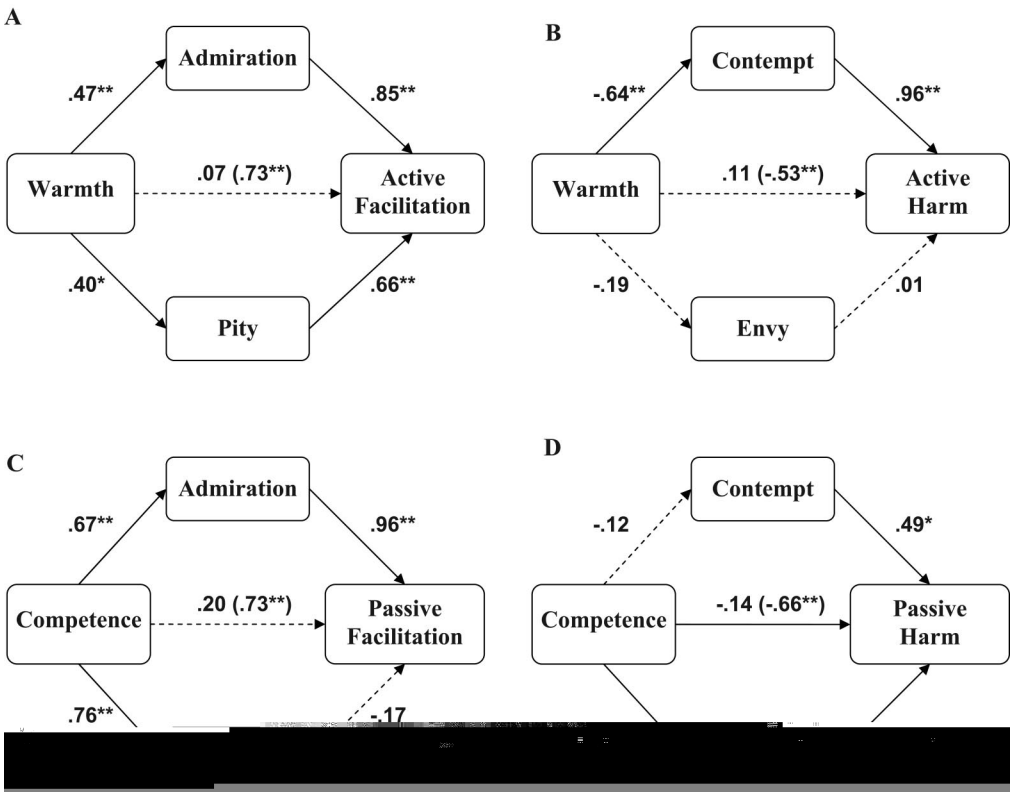


*Figure 3.* Regression analyses used to test mediation by emotions of the direct effect of stereotypes on behavioral tendencies. For each analysis, we controlled for the nonpredictor trait (i.e., warmth when competence was the predictor; competence when warmth was the predictor). The coefficient in parentheses represents the direct effect of the stereotype trait on the behavioral tendency, whereas the adjacent coefficient was observed when emotions were added to the model. Broken lines indicate nonsignificant effects. Sobel test results are as follows: A: active facilitation ($Z = 1.94$, $p = .05$); B: active harm ($Z = 1.67$, $p < .10$); C: passive facilitation ($Z = 2.30$, $p < .05$); and D: passive harm ($Z = 2.19$, $p < .05$). $^{*}p < .05$. $^{**}p < .01$.

not mediate any relationships of stereotypes to behavioral tendencies (discussed below).

Although a strength of Study 1 is its support for the hypothesized relationships across a range of real social groups and with a nationally representative sample of participants, its correlational design prevents establishing causality. Studies 2 and 3 were designed to provide experimental tests of the hypothesized causal relations between stereotypes and behavioral intentions and between emotions and behavioral intentions.

## Studies 2 and 3: Testing Causality of BIAS Map Links

Although Study 1 correlations support the BIAS map, they did not test the hypothesized causal relations. Studies 2 and 3 tested causality of links between stereotypes and behavioral tendencies (Hypothesis 1) and emotions and behavioral tendencies (Hypothesis 2).

To test the hypotheses more cleanly, we held constant the target group, varying only competence and warmth stereotypes (Study 2) and the emotions elicited by the group (Study 3). Both experiments described a fictitious ethnic group expected to immigrate soon in large numbers to the United States. Study 2 manipulated the extent to which the immigrant group was allegedly perceived as competent or incompetent, and warm or not warm, in their society of origin. Study 3 manipulated the distinct emotions (admiration, contempt, envy, pity) elicited by the immigrant group in their society of origin. Participants responded to longer versions of behavioral tendencies scales used in Study 1.

## Study 2: Causal Test of Hypothesis 1 (Stereotypes → Behavioral Tendencies)

### *Method*

*Participants.* Participants were 150 Princeton University undergraduates (59% female, 41% male) who voluntarily completed the questionnaire as part of a larger packet. Participant sex had no effects.

*Questionnaire and procedure.* The questionnaire described a fictitious ethnic group expected to immigrate to the United States in the near future. The 2 × 2 between-subjects design manipulated two perceived traits of the immigrant group: warmth (high–low) and competence (high–low). Participants were randomly assigned to one of four conditions and read,

> Due to political and economic circumstances, demographers predict waves of immigration in the next few years from an ethnic group

outside our borders called Wallonians. Members of this group are viewed by their society as *competent* (or *incompetent*) and *intelligent* (or *unintelligent*), and as *warm* (or *not warm*) and *good-natured* (or *not good-natured*). When people of this ethnic group arrive, to what extent will people here behave in each of the following ways toward them?

Using Likert-type scales (1 = *extremely unlikely* to 7 = *extremely likely*), participants indicated ratings on four 3-item behavioral tendencies scales: active facilitation (assist, help, protect), active harm (attack, fight, harass), passive facilitation (associate with, cooperate with, unite with), and passive harm (exclude, ignore, neglect).

### *Results and Discussion*

Participants' responses to all four 3-item scales were reliable, active facilitation $\alpha = .84$, active harm $\alpha = .82$, passive facilitation $\alpha = .74$, and passive harm $\alpha = .71$; so responses to the three items for each scale were averaged, resulting in four scale means. Because of main effect variations in the degree to which participants will endorse the different behavioral tendencies (e.g., participants seem more comfortable endorsing active facilitation than active harm, across conditions), resulting in significantly different behavioral tendencies means, the means were standardized to *Z* scores for comparison across groups, regardless of endorsement baselines.

*Active behaviors.* To test whether warmth affected the valence of active behaviors, we entered the behavior ratings into a 2 (competence: high vs. low) × 2 (warmth: high vs. low) × 2 (active behavior valence: facilitate vs. harm) ANOVA, with repeated measures on the last factor. Results revealed a significant Warmth × Active behaviors interaction, $F(1, 146) = 30.93$, $p < .001$, $\eta_p^2 = .18$. There were no other significant effects.

Planned comparisons helped to further interpret the interaction. As expected, high-warmth groups elicited more active facilitation than low-warmth groups, $F(1, 148) = 22.37$, $p < .001$, $\eta_p^2 = .13$; and low-warmth groups elicited more active harm than high-warmth groups, $F(1, 148) = 18.86$, $p < .001$, $\eta_p^2 = .11$ (see Table 2 for means).

*Passive behaviors.* To test whether competence affected the valence of passive behaviors, we entered the behavior ratings into a 2 (competence: high vs. low) × 2 (warmth: high vs. low) × 2 (passive behavior valence: facilitate vs. harm) ANOVA, with repeated measures on the last factor. The Competence × Passive behaviors interaction was significant, $F(1, 146) = 26.00$, $p < .001$, $\eta_p^2 = .15$. There were no main effects.

Planned comparisons revealed that competent groups elicited more passive facilitation than incompetent groups, $F(1, 148) = 17.71$, $p < .001$, $\eta_p^2 = .11$, and incompetent groups elicited more passive harm than competent groups, $F(1, 147) = 19.47$, $p < .001$, $\eta_p^2 = .12$ (see Table 2 for means). Results also revealed a significant Warmth × Passive behaviors interaction, $F(1, 146) = 14.15$, $p < .001$, $\eta_p^2 = .09$. High warmth groups elicited more passive facilitation ($M = 0.278$, $SD = 1.03$) than low warmth groups ($M = -0.293$, $SD = 0.87$), $F(1, 148) = 13.23$, $p < .001$, $\eta_p^2 = .08$, and low warmth groups elicited slightly more passive harm ($M = 0.169$, $SD = 0.87$) than high warmth groups ($M = -0.160$, $SD = 0.87$), $F(1, 148) = 4.15$, $p = .043$, $\eta_p^2 = .02$.

In a replication of an unpredicted Study 1 finding, warmth also increased passive facilitation tendencies and decreased passive harm tendencies, although the former effect was much larger ($\eta_p^2 = .08$) than the latter ($\eta_p^2 = .02$). The relationship is not entirely surprising, and is consistent with research on the drive to affiliate with similar (i.e., liked) others (e.g., Newcomb, 1956). However, it also could have resulted from our broad operationalization of passive facilitation (e.g., associating, uniting), which may have been interpreted by some participants as more communal than agentic. Nonetheless, effect sizes in both Studies 1 and 2 consistently show competence to be a stronger predictor than warmth of both passive behaviors.

Study 2 supports causal links between competence and warmth stereotypes and, respectively, active and passive behavioral tendencies. These results fit the general notion that cognitive appraisals predict action tendencies (Mackie et al., 2000), but tailored to our two-dimensional space. They go beyond the experimental specification of distinct cognitive images (Alexander et al., 1999), by adding behavioral tendencies. The next study examined emotion–behavior linkages.

## Study 3: Causal Test of Hypothesis 2 (Emotions → Behavioral Tendencies)

Study 2 provided a causal test of Hypothesis 1 (the proposed relationships between societal competence–warmth stereotypes and behavioral tendencies) and therefore did not manipulate the emotions. Study 3 provided a causal test of Hypothesis 2, that the four qualitatively distinct emotions (i.e., admiration, envy, pity, contempt) associated with the four competence–warmth stereotypes predict specific combinations of behavioral tendencies.

### *Method*

Participants were 200 Princeton undergraduates (63% female, 37% male) who completed the questionnaire in small group sessions in exchange for course credit. Participant sex had no effects.

The questionnaire was the same as the Study 2 questionnaire, describing a fictitious group expected to soon immigrate to the United States. In the four-cell between-subjects design, the type of emotion (admiration, envy, contempt, pity) the group allegedly elicited from others in their native society was manipulated. Participants were randomly assigned to a condition and read, "Members of this group are generally *admired/envied/hated*[3]*/pitied* by others in their society. When people of this ethnic group arrive, to what extent will people here behave in each of the following ways toward them?" Participants rated the same four 3-item behavioral tendencies scales as in Study 2.

### *Results and Discussion*

Participants' responses to all four 3-item scales were reliable: active facilitation $\alpha = .91$, active harm $\alpha = .86$, passive facilitation $\alpha = .83$, and passive harm $\alpha = .72$. As in Study 2, responses to the three items for each scale were averaged, then standardized to *Z* scores for analyses.

[3] To maintain parallel structure among the four emotions conditions, we used *hated* in place of *contempted*, an unnatural construction.

We sought to demonstrate that each emotion causes a unique pattern of behavioral tendencies. Specifically, we predicted admiration would increase both active and passive facilitation; contempt would increase both active and passive harm; envy would increase passive facilitation and active harm; and pity would increase active facilitation and passive harm.

We conducted a 4 (emotion: admire, envy, hate, pity) × 4 (behavior: active and passive facilitation and harm) ANOVA on the behavior ratings, with repeated measures on the behavior factor. The analysis revealed a significant Emotion × Behavior interaction, which supported the general hypothesis that distinct intergroup emotions lead to unique patterns of behavioral tendencies, $F(9, 546) = 17.94$, $p < .001$, $\eta_p^2 = .23$. There were no main effects.

In contrasts, more focused predictions were tested for each of the four behavioral tendencies. For each behavioral tendency, we assigned weights of 1 to both of the putative predictor emotions and weights of −1 to both of the nonpredictor emotions. For example, for active facilitation as a dependent variable, we assigned weights of 1 to admiration and pity, and weights of −1 to contempt and envy. As predicted, admiration and pity elicited higher active facilitation ($M = 0.456$, $SD = 0.91$; and $M = 0.403$, $SD = 0.85$, respectively), compared with contempt and envy ($M = -0.654$, $SD = 0.97$; and $M = -0.218$, $SD = 0.85$, respectively), $t(182) = 6.58$, $p < .001$. Contempt and envy elicited higher active harm ($M = 0.556$, $SD = 1.23$; and $M = 0.115$, $SD = 0.80$, respectively), compared with admiration and pity ($M = -0.432$, $SD = 0.89$; and $M = -0.246$, $SD = 0.75$, respectively), $t(182) = 5.01$, $p < .001$. Admiration and envy elicited higher passive facilitation ($M = 0.748$, $SD = 0.99$; and $M = 0.282$, $SD = 0.85$, respectively), compared with contempt and pity ($M = -0.815$, $SD = 0.73$; and $M = 0.217$, $SD = 0.69$, respectively), $t(196) = 8.86$, $p < .001$. Contempt and pity elicited higher passive harm ($M = 0.551$, $SD = 0.91$; and $M = 0.046$, $SD = 0.91$, respectively), compared with admiration and envy ($M = -0.544$, $SD = 0.91$; and $M = -0.053$, $SD = 0.88$, respectively), $t(196) = 4.54$, $p < .001$.

The data thus supported the hypothesized causal links between each group's typical emotion and the behavioral tendencies toward that group, replicating the four different patterns of behavioral tendencies documented in Study 1. Active facilitation was higher for admired and pitied groups, compared with envied and hated groups, who elicited higher active harm. Passive facilitation was higher for admired and envied groups, compared with hated and pitied groups, who elicited higher passive harm. Effects for the ambivalent emotions, envy and pity, were weaker than effects for the univalent emotions, admiration and contempt, albeit all significantly followed the hypothesized patterns. This study fits several previous contributions but goes beyond each: It fits IET's emotions–behavior link (Mackie et al., 2000) and provides some specific examples based on our framework; it also fits the functional idea that emotion enters into intergroup behavior (Alexander et al., 1999) and specifies which emotions predict which behaviors; it likewise fits the sociofunctional idea that specific emotions resulting from threat will predict approach–avoidance (Cottrell & Neuberg, 2005) and specifies differentiated emotion links to differentiated behavior. Finally, it goes beyond the SCM specification of social structure leading to stereotypes and emotions (Fiske, Cuddy, Glick, & Xu, 2002; Fiske et al., 1999), by linking the emotions to behavioral tendencies. Thus, these compatible results integrate previous intergroup emotion–behavior frameworks.

## Study 4: Anger and Fear in the BIAS Map

All of the BIAS map emotions considered thus far—admiration, contempt, envy, and pity—are secondary, or uniquely human, emotions (Demoulin et al., 2004). But much of the existing intergroup emotions literature research has focused on the primary (i.e., nonuniquely human) emotions of anger and fear (e.g., Dijker et al., 1996; Mackie et al., 2000). Because one goal of this work is to integrate prior research on intergroup emotions, we conducted a fourth study to examine the roles of these more primary emotions in the BIAS map framework. Additionally, appending these more basic emotions might clarify the relatively weak link between envy and active harm, as discussed below.

Both anger and fear are activated by the perception that another person or group is, in some way, unfriendly. Anger is elicited by the perception that another's behavior is unfair (i.e., immoral; see Frijda et al., 1989) and by appraisals of unwelcome competition (i.e., low warmth) from outgroups (Alexander et al., 1999; Mackie et al., 2000). Fear is elicited by perceived threat (i.e., low warmth) from another individual (Frijda et al., 1989) or outgroup (e.g., Stephan & Stephan, 2000). In short, fear and anger occur toward groups viewed as hostile. That the warmth dimension alone is likely to drive the primary emotions of anger and fear is consistent with the evidence already presented concerning the primacy of the warmth dimension. Therefore, we hypothesize that, regardless of perceived competence, groups perceived as lacking warmth (compared with groups perceived as warm) will be more likely to elicit anger and fear.

If anger and fear are driven by the warmth dimension in intergroup perception, then these primary emotions may predict active rather than passive behaviors. Past research indeed suggests that anger leads to antagonistic and offensive actions toward others, such as verbal or physical assault, but not to defensive or passive actions, such as neglecting or ignoring (Dijker et al., 1996; Frijda et al., 1989; Mackie et al., 2000). So, we hypothesized that anger would correlate positively with active harm and negatively with active facilitation but would not correlate with either of the passive behaviors. Although fear has been theoretically linked to defensive action tendencies toward others (Frijda et al., 1989; Mackie et al., 2000), such as avoiding and excluding, empirically this link has received mixed support (Mackie et al., 2000; see also Devos, Silver, Mackie, & Smith, 2002). Thus, we were agnostic about the relationship of fear to the behavioral tendencies.

Our final prediction identifies anger as a possible mediator of the relatively weak relationship of envy to active harm. Envy has been linked to anger (Hareli & Weiner, 2002), and as discussed, anger leads to offensive actions toward others. Envy may elicit active harm only when a society is under great stress or under circumstances that heighten intergroup competition (Glick, 2002, 2005; Staub, 1996), which thereby increase anger. In particular, Glick (2002, 2005) has suggested that when a society experiences difficult life conditions (Staub, 1996), groups perceived as competent competitors (i.e., envied groups) are most likely to be scapegoated. For example, the Nazis viewed the Jews as powerful, competent manipulators who had engineered Germany's defeat in World War I and the subsequent economic crisis. In Rwanda, the

Tutsi, also a high-status minority, were similarly blamed for the nation's economic problems. Active harm (at its most extreme, genocidal attack) can be justified and motivated when an outgroup is viewed as a powerful and competent competitor or exploiter. We therefore hypothesized that anger, sometimes elicited by the circumstances just described, mediates the link between envy and active harm.

### *Method*

We used a similar methodology to that used in Study 1, although the questionnaire was administered by computer, not by telephone interview. Participants, who were 42 Rutgers University undergraduates (62% female, 38% male), rated a list of eight groups (Asians, disabled, elderly, homeless, middle-class, rich, students, welfare recipients) presented in random order, on a total of 30 items measuring (a) competence and warmth (single items); (b) admiration, contempt, envy, and pity; (c) anger (angry, mad) and fear (afraid, anxious);[4] and (d) active facilitation, active harm, passive facilitation, and passive harm. Using 5-point scales (1 = *not at all*; 5 = *extremely*), participants rated how the groups "are perceived by Americans." One participant was omitted for answering fewer than 50% of the questions. The anger and fear scales were new, but the other scales were derived from Studies 1 to 3, with one exception; resentful, identified by emotion theorists as a critical component of envy (e.g., Smith et al., 1996), was added to the envy scale.

### *Results and Discussion*

Scale reliabilities follow: admiration $\alpha = .79$, contempt $\alpha = .77$, envy $\alpha = .86$, pity $\alpha = .87$, anger $\alpha = .92$, fear $\alpha = .71$, active facilitation $\alpha = .86$, active harm $\alpha = .83$, passive facilitation $\alpha = .86$, and passive harm $\alpha = .87$. Our analyses focused on the role of the primary emotions, anger and fear, in the BIAS map framework, so we report only results relevant to those predictions. As hypothesized, warmth correlated negatively with both anger (participant $r = -.43$, $p < .01$; group $r = -.58$, $p = .12$) and fear (participant $r = -.48$, $p < .01$; group $r = -.66$, $p < .08$). Also as expected, competence did not correlate with either anger or fear at the group level (both $p$s $> .50$) and correlated only slightly with fear ($r = -.15$, $p = .05$), but not with anger ($p > .50$), at the participant level.

We next examined correlations between the new emotions and the behavioral tendencies. As hypothesized, anger correlated negatively with active facilitation (participant $r = -.40$, $p < .05$; group $r = -.82$, $p = .01$) and positively with active harm (participant $r = .64$, $p < .01$; group $r = .93$, $p = .001$). Fear correlated positively with active harm (participant $r = .40$, $p < .05$; group $r = .68$, $p = .08$) but did not correlate with active facilitation. Neither anger nor fear correlated with the passive behaviors at the group level, $p$s $> .60$ and .30, respectively. However, at the participant level, anger and fear did correlate with passive facilitation ($r$s $= -.23$ and $-.31$, $p$s $< .05$, respectively) and passive harm ($r$s $= .22$ and .29, respectively, $p$s $< .05$).

Our next set of analyses involved showing that the relationship of envy to active harm would be mediated by anger. A series of analyses regressed (a) active harm (the criterion) onto envy (the predictor); (b) anger (the mediator) onto envy; and (c) simultaneously active harm onto both anger and envy. Figure 4 presents the results of those analyses. As predicted, anger fully mediated the envy to active harm relationship.

We also conducted a post hoc investigation of the possibility that competence might have moderated the effects of warmth on fear and anger, such that people may have experienced more anger toward low-warmth, low-competence groups and more fear toward low-warmth, high-competence groups. These links have been suggested by appraisal theories, which contend that anger is elicited by the perception that the self is stronger or more powerful (i.e., more competent) than a threatening (i.e., not warm) other, whereas fear is elicited by the perception that the self is weaker or less powerful (i.e., less competent) than a threatening other (Frijda et al., 1989; Mackie et al., 2000).[5] Post hoc analyses of the present data do not support such a pattern. First, correlations between warmth and anger and warmth and fear did not differ for high-competence groups ($r$s $= -.80$ and $-.71$, respectively) versus low-competence groups ($r$s $= -.76$ and $-.68$, $p = .32$, respectively). Second, high-competence and low-competence groups did not differ on anger ($M = 2.12$, $SD = 0.64$; and $M = 1.89$, $SD = 0.39$, respectively) or fear ($M = 2.00$, $SD = 0.39$; and $M = 2.01$, $SD = 0.37$, respectively; both $t$s $< 1$, both *ns*). Although competence did not moderate the effects of warmth on fear and anger in the present study, these analyses were post hoc and should be interpreted with caution.

Results from Study 4 suggest that the inclusion of two relatively primary emotions—anger and fear—adds valuable information to the BIAS map framework. As predicted, both anger and fear correlated with warmth but not competence (except for a small negative correlation between fear and competence at the participant level). Anger correlated with both of the active behaviors; fear correlated with active harm but not active facilitation. Anger and fear did not correlate with either of the passive behaviors at the group level but did correlate with the passive behaviors at the participant level. Perhaps most important, anger fully mediated the relationship of envy to active harm, which helps to resolve the weak relationship between these variables in Studies 1 and 3. Overall, these results fit previous intergroup emotions research by identifying roles for the primary emotions, fear and anger (e.g., Cottrell & Neuberg, 2005; Mackie et al., 2000); these findings integrate that prior work within the overall framework.

## General Discussion

Together, these four studies address a fundamental question in the psychology of intergroup relations: How do stereotypes and emotions shape behavioral tendencies toward groups? We identified specific patterns of stereotypic traits, distinct emotions, and related behavioral responses. Grounded in the structure of intergroup relations, the BIAS map provides an integrative theoretical approach that identifies (a) underlying dimensions of intergroup behavior (active–passive, facilitative–harmful), (b) their roots in

[4] Participants also rated the groups on affection and fondness, together representing another emotion of theoretical interest. We do not report those results here, but they are available upon request.

[5] Empirical support has been mixed for the prediction that fear is elicited by outgroups that are perceived to be stronger or more powerful than the ingroup (Devos et al., 2002; Mackie et al., 2000).

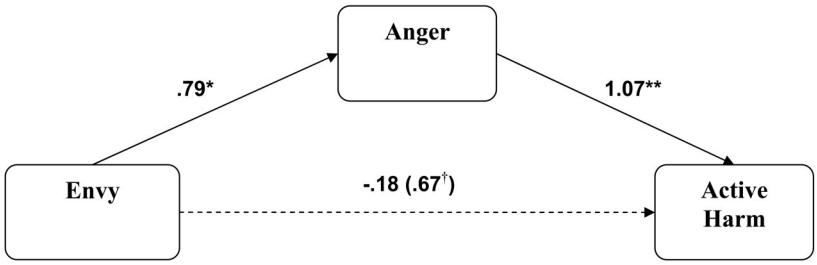


*Figure 4.* Regression analyses showing that anger mediated the effect of envy on active harm. The coefficient in parentheses represents the direct effect of envy on active harm, whereas the adjacent coefficient was observed when anger was added to the model. Broken lines indicate nonsignificant effects. Sobel test results are as follows: $Z = 2.21$, $p < .05$. $^{\dagger}p = .07$. $^{*}p < .05$. $^{**}p < .01$.

dimensions of stereotypes (competent–incompetent, warm–cold), (c) corresponding discrete emotions, and (d) both univalent and ambivalent clusters of stereotypes, emotions, and discriminatory behaviors. Lacking the distinctions among stereotype traits, specific social emotions, and dimensions of behavior, past research may have underestimated the relationships among stereotypes, emotions, and behaviors.

This work is unique in its theoretical focus on stereotype trait dimensions as significantly determining the nature of discriminatory treatment. The BIAS map theoretically links the proposed dimensions of behavior to the two traits that consistently emerge as the most central in social perception—competence and warmth. This allows us to separate cognitive appraisals of structural relations (i.e., perceived status and competitiveness) from cognitive beliefs about a group's traits (i.e., competence and warmth), in turn linking both to behavioral tendencies. Although both appraisals and stereotypes are cognitive, one likely precedes the other.

Although stereotypes affected intergroup behavioral tendencies, the relationship of stereotypes to behavioral tendencies was typically indirect, mediated by emotions. Consistent with earlier SCM research, competence and warmth combined to produce distinct intergroup emotions. The emotions, in turn, were strongly related to distinct behavioral tendencies and (either partially or more often fully) mediated the stereotype → behavioral tendency links.

The BIAS map focuses not on personal stereotypes but on stereotypes as culturally shared knowledge. Even when individuals personally reject stereotypes that are prevalent in their cultures, they know and often cannot help but be affected by them. Thus, the study of cultural stereotypes has gained momentum in recent years (e.g., Devine, 1989; Glick & Fiske, 2001; Jost, Pelham, & Carvallo, 2002). For example, aversive racism theory proposes that exposure to cultural stereotypes leads White people who genuinely desire to be egalitarian to nonetheless have automatic negative associations with Black people (Gaertner & Dovidio, 1986). In other words, exposure to (even without endorsement of) cultural stereotypes considerably affects reactions to outgroups. Analyses of demographic subgroups from Study 1's representative national sample indicate high agreement about the contents of the stereotypes, emotions, and behavioral tendencies toward a range of salient social groups, regardless of the social location of the perceivers' group. Altogether, the present research illuminates an apparently consistent representation of the contents of emotional prejudices and intergroup behaviors elicited by stereotypic competence and warmth. Still, societal prejudices do not always equal personal prejudices. We do not yet know how the perspective of the perceiver will affect the BIAS map's relationships at the personal level, a central question for future research.

The relationships among competence–warmth stereotypes, specific emotions, and intergroup behaviors may represent a lay theory of cultural bias. Personal lay theories are organized knowledge structures that interpret people's social worlds, significantly helping to direct their social behaviors (e.g., Heider, 1958; Hong, Levy, & Chiu, 2001). Recent analyses have examined the role of lay theories in group perception (e.g., Hong et al., 2001; Yzerbyt & Rocher, 2002). If the BIAS map represents a cultural lay theory, then the links could be activated from any point in the sequence. For example, manipulating the behavioral tendencies might activate the linked competence–warmth stereotypes and discrete emotions. Certainly, this possibility in no way rules out the idea that the BIAS map also reflects real intergroup phenomena. In fact, given that lay theories often direct social behaviors, the BIAS map might both reflect and shape intergroup phenomena. Again, this is a focal question for future research.

Study 4 added anger and fear to the BIAS map framework. Both emotions were strongly linked to perceptions of low warmth, regardless of perceived competence, and to the active behavioral tendencies. These links are consistent with the notion that the primary emotions of anger and fear are driven by the perceived friendliness or hostility of groups, which we have argued have greater primacy than perceived competence. Exactly how such primary emotions fit into the SCM is an important matter for future investigation. Perhaps the most important contribution of Study 4 is clarification of the relationship of envy to active harm, showing that it is mediated by anger. Future research will be needed to identify and understand in more detail the conditions under which envy transforms into anger. Glick's (2002, 2005) model of scapegoating offers one possibility: that envied groups elicit anger when they are believed to have intentionally caused harm to the rest of society.

### *Directions of Future Research*

Although the current study suggests that each ambivalent prejudice (envious and paternalistic) can potentially produce helpful or harmful behavioral responses, it does not identify when one or the other will be triggered. Which pole of the ambivalence guides

responses to groups in the envied (HC-LW) and pitied (LC-HW) clusters may depend on which stereotypic dimension activates. For example, if their putative lack of competence is salient, pitied groups may evoke passive harm (avoid, demean), but if their warmth is salient, they may elicit active facilitation (help, protect). Notably, however, even when the ostensibly positive pole of an ambivalent bias is activated, the consequences may not be wholly beneficial. Active facilitation promoted by pity and stereotypic incompetence includes over helping or overprotecting, which implicitly reinforce a pitied group's lower status.

Situational context may also play an important part in determining whether the positive or negative pole of an ambivalent bias is activated. For example, a professional context likely primes competence. In an experiment comparing behavioral intentions toward consultants (female versus male, parents versus not parents) at a high-status firm (i.e., a professional context), participants expressed significantly more passive harm (i.e., failure to hire, promote, or train) toward the mother (Cuddy et al., 2004). Moreover, competence ratings negatively related to the passive harm intentions. In a context that makes salient the mothers' stereotypic warmth (e.g., an elementary school function), the mother may be preferred (e.g., offered a better seat). Similarly, Hebl, King, Glick, Singletary, and Kazama (in press) found that apparently pregnant (vs. nonpregnant) women were treated with greater benevolence when posing as store customers but greater hostility when posing as job applicants. Stereotype priming might have direct effects or (as the current data suggest) be mediated by emotions.

If emotions more directly determine behavior, situational factors that prime the positive versus the negative components of the emotions toward targets of ambivalent prejudice could have powerful effects on behavior. The SCM suggests that the underlying questions that determine people's reactions to other groups are whether they are perceived as friend or foe and as capable of helping or harming one's own group. Situations that prime inclusive orientations toward target groups (e.g., as a friend) may elicit positive, and situations that prime an exclusive orientation (e.g., identity politics) may elicit negative, emotional responses to targets of ambivalent prejudice. For example, Allport (1954) describes a veteran's admiration toward the Jewish lieutenant of his platoon, who "took good care of his men" and was adept at getting scarce supplies; "'*That's the Jew in him*—he was good at getting things like that'" (p. 191, italics in original). Because the Jewish lieutenant's stereotypical cleverness (i.e., competence) benefited a common ingroup (the platoon), he elicited subjectively positive emotions and facilitative behavior from a biased perceiver. Probably, in an exclusionary context (e.g., competition for civilian jobs), the biased perceiver would exhibit negative emotions and behaviors toward Jews.

On a methodological note, Studies 2 and 3 may suffer external validity shortcomings inherent to most scenario studies. We chose to use the scenarios to isolate the effects of the predictor traits and emotions on the behavioral tendencies, stripping away potential confounds of preexisting beliefs about real groups. For similar reasons other intergroup researchers have also used scenario studies (e.g., Alexander et al., 1999; Castano & Giner-Sorolla, 2006). However, the trade-off gain on control can come at the cost of external validity. Future studies should address this issue by manipulating the critical information in a different format, such as a newspaper article.

### *Conclusion*

For targets of bias, it is the behavioral consequences (i.e., discriminatory treatment) of group stereotypes and emotions that count. The BIAS map charts how a group's location in the competence–warmth map of stereotypes predicts the bias climate that group is likely to experience. Specifically, competence–warmth stereotypes and four distinct patterns of emotions (admiration, pity, envy, and contempt) predict facilitative versus harmful and active versus passive behavioral tendencies. The map provided here sketches a general structure, for which some details (e.g., factors that elicit the positive versus negative response potentials of ambivalent prejudices) remain to be filled in by further investigation. If the general framework is sound, however, the blueprint offered here differentiates distinctive patterns of discriminatory behavioral tendencies across a broad spectrum of groups, offering new insight into how stereotypes and emotions relate to discriminatory behaviors.

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(*Appendix follows*)

# Appendix

## Interview Script and Items for National Survey, Study 1

### *Interview Script*

Live interviewers introduced the study as follows:

> Hi, my name is ___ and I'm calling from Princeton University to conduct a survey about how Americans view different social groups. It's an opinion survey only; we are not selling anything.

After an adult household member agreed to participate, the interviewer explained,

> We are studying how different groups are perceived by Americans. We are interested in how you think other people in general view these groups. We are not asking how you personally view these groups, but how you think most people view them.

After receiving instructions about how to rate the groups on the 5-point scale (1 = *not at all*; 5 = *extremely*), participants began making ratings, answering all questions—traits, social structure, emotions, and behaviors—about one group before moving on to the next group. Questions about perceived traits were phrased as follows:

> Consider how [group, e.g., the elderly] are viewed by Americans in general. As viewed by most Americans, how [e.g., competent] are [group]?

For the social structure items, the interviewer read the following four items:

> Again, as viewed by Americans, how economically successful have [group] been?
>
> . . . how prestigious are the jobs generally held by [group]?
>
> . . . how much does special treatment given to [group] make things more difficult for other groups in America?
>
> . . . if resources go to [group], to what extent does that take resources away from the rest of society?

For emotion items, the interviewer read,

> Now I'm going to ask you about some feelings that people in America have toward [group] as a group. To what extent do people tend to feel [emotion, e.g., pity] toward [group]?

For behavior items, the interviewer read,

> Finally, I am going to ask you about the ways people in America generally behave toward [group] as a group? Do people tend to [behavior, e.g., help] [group]?

### *Scale Items*

*Social structure scales.*

Status: economic success, prestigious jobs

Competitiveness: special breaks, resources

*Stereotypes scales.*

Competence: competent, capable

Warmth: warm, friendly

*Emotions scales.*

Contempt: contempt, disgust

Admiration: admire, proud

Pity: pity, sympathy

Envy: envious, jealous

*Behavioral tendencies scales.*

Active facilitation: help, protect

Active harm: fight, attack

Passive facilitation: cooperate with, associate with

Passive harm: exclude, demean

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