

## **MINORITY MEMBERS' IMPLICIT ATTITUDES: AUTOMATIC INGROUP BIAS AS A FUNCTION OF GROUP STATUS**

Laurie A. Rudman, Joshua Feinberg, Kimberly Fairchild  
*Rutgers University*

We compared implicit and explicit ingroup bias across four minority groups who ranged in status from high (Jews and Asians) to medium (overweight people) to low (poor people). Minorities relatively high in status showed more implicit ingroup bias than minorities relatively low in status. In fact, overweight and poor people showed automatic preference for the dominant outgroup (i.e., own group devaluation). The relationship between ingroup bias and perceived status was reliably positive whether based on category membership ( $r = .54$ ) or minority members' own perceptions of their status ( $r = .36$ ), but only at the implicit level. By contrast, explicit attitudes were negligibly correlated with status differences. In addition, dominant group members showed stronger possession of implicit ingroup bias than did minorities, but particularly as their relative status increased. In concert, the findings support system justification theory (Jost & Banaji, 1994) by showing that minorities with the least status are the most susceptible to automatic ingroup devaluation. They also suggest that motives to legitimize the status quo are predominantly nonconscious, for minorities and dominants alike.

At the dawn of the 21st century, Americans appear poised to challenge prejudice and discrimination more than at any other time in history. Legislation has been enacted to level the playing field for minorities and to protect them from backlash (e.g., affirmative action policies, hate crime laws). In response, the demographic landscape of American workplace and educational settings has changed dramatically from a century ago. Nonetheless, minority groups continue to suffer disadvantages that majority group members do not endure.

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This research was partially supported by Grant BCS-0109997 from National Science Foundation. Correspondence concerning this article may be addressed to Laurie A. Rudman, Department of Psychology, Tillet Hall, Rutgers University, 53 Avenue E, Piscataway, NJ, 08854-8040, E-mail: rudman@rci.rutgers.edu

A possible explanation for the persistence of discrimination against minorities centers on people's implicit attitudes toward and stereotypes about social groups (Greenwald & Banaji, 1995). These orientations can be characterized as well-learned (i.e., routinized) associations between minority groups, evaluation, and attributes. Due to long-standing status differences between minorities and majorities, implicit orientations are likely to be relatively negative, even when conscious opinions are egalitarian. In essence, living in a society that has traditionally shown favoritism toward certain groups may result in cultural "brainwashing" (Devine, 1989). Despite conscious efforts to ward off prejudice and stereotypes, people may nonetheless internalize negative attitudes toward and beliefs about minority more than majority groups.

Indeed, evidence for an automatic "cultural indoctrination" effect has emerged in the past decade by researchers using response latency (implicit) techniques. Although the methods vary, including associative categorization (e.g., Greenwald, McGhee, & Schwartz, 1998; Rudman, Greenwald, Mellott & Schwartz 1999), and semantic and evaluative priming (e.g., Fazio, Jackson, Dunton, & Williams, 1995; Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997; Wittenbrink, Judd, & Park, 1997), the findings have been similar. For the most part, more prejudice and stereotyping were shown when indexed by implicit techniques, compared with explicit counterparts (self-reports). However, nearly all of this research has focused on attitudes toward and beliefs about minorities on the part of majority members (e.g., whites' orientations toward blacks). The present research sought to expand this picture by focusing on the implicit associations that minority group members possess. Researchers investigating group differences in implicit prejudice have typically used small samples of minorities, primarily to provide known groups validity for response latency techniques (Fazio et al., 1995; Rudman et al., 1999). As a result, the picture of minority group members' implicit cognitive systems remains speculative.

### SYSTEM JUSTIFICATION THEORY

Attitude researchers have long presumed that prejudice is a precursor to discrimination (Eagly & Chaiken, 1993). By contrast, system justification theory (SJT; Jost & Banaji, 1994) argues that a history of oppression can lead to acceptance of negative attitudes toward subordinate groups as a means of justifying the status quo. In other words, discrimination can

lead to prejudice. In particular, SJT posits that people are motivated to believe in a just world and that this belief can lead even minorities to internalize negative feelings toward their own groups. As a consequence, minorities are thought to be victims of *false consciousness*—the tendency on the part of marginalized group members to implicitly accept society's negative orientations toward their group as justification for their subordinate status. The alternative is to recognize that life is ineffably unfair and that your group is routinely victimized through no fault of its own, which can lead to psychic costs such as frustration and depression (Lerner, 1981).

It is important to note that Jost and Banaji (1994) stress that these attitudes and beliefs are likely to be relatively nonconscious, as is the motive sustaining them (i.e., the need to justify social hierarchies to avoid feeling unfairly victimized). Thus, negative own group orientations may be disavowed on self-report measures, but nonetheless implicitly held by minorities. If so, automatic ingroup devaluation may have serious consequences. For example, implicit ingroup devaluation might impinge upon minority group members' economic and social progress, covertly steering them away from the pursuit of equality.

What is the evidence for false consciousness? For theoretical reasons, support for its existence should be sought using implicit measures, as these provide an index of the automatic associations thought to underlie nonconscious attitudes and beliefs (Greenwald & Banaji, 1995). Consistent with SJT, California state college students showed less automatic ingroup bias, compared with Stanford University students (Jost, Pelham, & Carvallo, in press), and Jewish subjects showed less automatic ingroup bias, compared with Christians (Rudman et al., 1999). However, these groups did not show automatic preference for the outgroup (i.e., ingroup devaluation), so the results were somewhat weak with respect to SJT's predictions. Nonetheless, relative to many other group members, state college students and Jewish Americans enjoy relatively high status in American society. It is therefore important to assess the implicit attitudes of minorities who differ with respect to their status in society in order to systematically test SJT's assumption.

## RESEARCH OBJECTIVES AND HYPOTHESES

We assessed implicit ingroup bias in minorities who varied on a continuum from high status to low status (Jews, Asians, overweight people,

and poor people), as determined by a pretest (the results of which were replicated in the present research, and are described below). In each case, the contrast used was minority vs. majority (Jews vs. Christians, Asians vs. whites, overweight vs. slim people, and poor versus rich people), but the attributes used to measure attitudes were identical for each group. For comparison purposes, we included explicit measures of ingroup bias, although we did not expect these to differ as a function of relative group status. We also assessed subjects' own perceptions of their group's relative status.

The main hypothesis was that minorities relatively high in status would associate their own group with positive attributes and their outgroup with negative attributes (i.e., show implicit ingroup bias), whereas minorities relatively low in status should show the reverse (i.e., implicit ingroup devaluation; Jost & Banaji, 1994). Because explicit attitudes are less likely to conform to nonconscious tendencies to support the status quo, we did not expect a similar pattern to emerge using a self-report measure of ingroup bias. In sum, low status minorities should show relatively more evidence of implicit (but not explicit) ingroup devaluation, compared with high status minorities. Finally, minorities' implicit attitudes were predicted to correlate with their societal status, whether measured as category membership or as individual differences in perceptions of their group's relative status. By contrast, the association between minorities' explicit attitudes and status perceptions was expected to be relatively weak.

The Implicit Association Test (IAT; Greenwald et al., 1998) was used to assess implicit ingroup bias, as it has shown the necessary construct validity (see Greenwald & Nosek, 2001, for a review). Moreover, the IAT has shown substantial predictive utility as a measure of implicit attitudes and stereotypes (e.g., Rudman & Glick, 2001; Rudman & Lee, 2002). For example, IAT-assessed anti-black attitudes predicted subjects' friendliness during an interview with a black experimenter, whereas self-reported prejudice did not (McConnell & Leibold, 2001). Finally, the IAT was deemed appropriate for the research objectives because it measures relative attitudes (allowing for the contrast between attitudes toward dominants and minorities), which were predicted to be linked to perceptions of relative status (i.e., when minorities were compared with the dominant outgroup).

## METHOD

### PARTICIPANTS

In exchange for partial fulfillment of their Introductory Psychology experimental credit requirement, 593 volunteers participated in the study.<sup>1</sup> Because the focus of the research concerned minority members only, we selected subjects who belonged to only one of the subordinate groups. The remaining sample ( $N = 302$ ; 189 women) consisted of 48 Jewish Americans (28 women), 89 Asian Americans (65 women), 53 overweight people (23 women), and 112 people of relatively low SES background (73 women). Religion and ethnicity were determined by subjects' self-report. Based on government standards, overweight was determined by selecting only those subjects with a body mass index (BMI) of 27 or greater. Finally, subjects were asked to indicate their family's SES on a scale from 1 (*extremely low*) to 7 (*extremely high*). Only those subjects who selected a response of 3 or less were retained for the poor sample. On average, these subjects reported that their family's annual income was \$33,600 ( $SD = 14.60$ ).<sup>2</sup> The critical sample contained 118 whites (39%), 89 Asian Americans (29%), 41 African Americans (14%), 28 Latinos (9%) and 26 people (9%) who reported another ethnic identity.

### MATERIALS

*Group Status Differences.* The following 8 critical groups were presented (in random order, using a computerized task): Christians, Jews, Whites, Asians, Slim People, Overweight People, Rich People, and Poor People. In addition, seven filler groups were assessed: Men, Women, Latinos, African Americans, Elderly People, Muslims, and Homosexuals. Subjects were asked to indicate the status of each group on a scale that ranged from 10 (*very high*) to 1 (*very low*). Based on the complete sample ( $N = 593$ ), the means (and standard deviations) for the

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1. The sample (213 men, 380 women) contained 244 whites (41%), 170 Asian Americans (29%), 41 blacks (7%), 51 Latinos (9%) and 87 people (14%) who reported another ethnic identity.

2. This was significantly lower than the income reported by subjects who rated their family with a score of 5 or greater ( $M = \$81,600, SD = 27.00$ ),  $t(226) = 16.75, p .001$ . Not surprisingly, mean annual income was correlated with subjects' ratings of their SES,  $r(300) = .72, p .001$ .

perceived status of the focal groups were as follows: Christians ( $M = 7.78, SD = 1.65$ ); Jews ( $M = 5.89, SD = 1.96$ ); whites ( $M = 8.47, SD = 1.44$ ); Asians ( $M = 5.83, SD = 1.74$ ); slim people ( $M = 7.58, SD = 1.72$ ); overweight people ( $M = 3.12, SD = 1.59$ ); rich people ( $M = 8.94, SD = 1.38$ ); and poor people ( $M = 2.70, SD = 1.51$ ). Not surprisingly, in each case the majority was revealed to have more status than the minority group, all  $t_s > 19.94, p_s < .001$ .

The status difference between majorities and minorities was then computed, such that high scores indicated relatively more status. These relative status indexes showed the expected differences among the contrasted groups. The difference between Christians and Jews (the religious groups;  $M = 1.91, SD = 2.37$ ) was smaller than that between whites and Asians (the ethnic groups;  $M = 2.59, SD = 2.19$ ),  $t(591) = 6.29, p < .001$ . However, the differences between these religious and ethnic groups was substantially smaller than were the differences between slim and overweight people ( $M = 3.86, SD = 2.50$ ), both  $t_s(591) > 10.86, p_s < .001$ , and rich and poor people ( $M = 6.23, SD = 2.36$ ), both  $t_s(591) > 33.60, p_s < .001$ . In addition, the difference between slim and overweight people was smaller than the spread between the rich and the poor,  $t(591) = 22.68, p < .01$ . Thus, the critical groups represent a range of minority groups that fall on a status continuum from relatively high (Jews and Asians) to medium (overweight people) to low (poor people).

*Implicit Ingroup Bias.* Each IAT used pleasant (e.g., happy, smile, peace) and unpleasant (e.g., bad, pain, awful) attributes (adopted from Greenwald et al., 1998). The IATs differed only in their target constructs (i.e., group tokens). The *Jewish-Christian* IAT used Jewish names (e.g., Shapiro, Cohen, Katz) and Christian names (e.g., Miller, Taylor, Johnson). The *Asian-white* IAT used black and white photos cropped to present only the faces of male and female Asians and whites. The *sizeism* IAT used synonyms for overweight people (e.g., fat, overweight, heavy) and slim people (e.g., slim, thin, skinny). The *classism* IAT used words to represent poor people (e.g., poor, lower class, welfare) and rich people (e.g., rich, upper class, wealth). The appendix provides the category labels and attributes used for each IAT.

The choice of group tokens for each IAT was dictated by practical concerns. We used names to distinguish between Jews and Christians because photos would have necessitated exaggerating physical feature differences that may have biased the results. Pictures were used

to distinguish between Asians and whites because Asian names can be identified (by Asians) as pertaining to different subgroups (e.g., Chinese, Japanese, Korean). A pretest (using African American and Latino faces as filler items) showed that, on average, whites rated the white faces as somewhat more attractive than the Asian faces, whereas Asians showed the reverse effect, both  $t_s > 1.89$ ,  $p_s < .10$ . Common descriptors were used to identify overweight versus slim people, and poor versus rich people in order to avoid likely physical attractiveness differences had we used either photos or the names of famous exemplars (moreover, there are few famous exemplars of poor people).

Each IAT was administered following standard procedures (e.g., Greenwald et al., 1998). Thus, subjects completed practice trials in which they categorized only attributes (on their first IAT) or only target constructs (in each IAT) in order to become familiar with the stimuli. They then practiced associating each group with either pleasant or unpleasant attributes (the double categorization task) prior to completing each critical, double categorization task. Order in which subjects completed the critical tasks was counterbalanced across subjects such that half of them associated minorities with pleasant attributes (and dominants with unpleasant attributes) prior to reversing these associations, whereas the other half associated minorities with unpleasant attributes (and dominants with pleasant attributes) before reversing these associations.<sup>3</sup> There were 20 practice trials and 40 critical trials per task (total trials = 440).

*Explicit Ingroup Bias.* A thermometer measure asked participants to indicate, separately for each of the critical groups, their feelings toward each group on a scale labeled from 0 (*extremely cold, or unfavorable*) to 10 (*extremely warm, or favorable*). A difference score was computed such that high scores indicated more positive evaluation of minorities compared with majorities (i.e., Jews vs. Christians, whites vs. Asians, overweight vs. slim people, and poor vs. rich people).

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3. The order in which subjects completed the double categorization tasks weakly influenced the findings for the Jewish-Christian IAT, such that subjects who completed Jewish + pleasant first were somewhat more likely to show implicit favor to Semitic themes, compared with those who completed Jewish + unpleasant first,  $r(300) = .24$ ,  $p < .001$ . Order did not influence the remaining IATs, all  $r_s .10$ ,  $p_s > .08$ .

## DESIGN AND PROCEDURE

Because we did not recruit subjects based on category membership, we used a within-subjects' design in which all participants completed the sizeism and classism IATs, in addition to either the Jewish-Christian IAT or the Asian-white IAT. To increase the number of relevant minorities, subjects were asked to report their religion and ethnicity before the experiment began. Jewish subjects were then assigned to complete the Jewish-Christian IAT, whereas Asians completed the Asian-white IAT. The remaining subjects completed either the Jewish-Christian or the Asian-white IATs based on random assignment. We report below the results for minority members who held minority status for only one focal group. Thus, for example, although all subjects completed three IATs (to hold constant this variable), in essence, only one IAT served as the critical measure (the one that pertained to their minority standing); the remaining two served as filler. Therefore, the design was a 4 (group status: Jews, Asians, overweight, poor)  $\times$  2 (ingroup bias measure: implicit, explicit) mixed factorial, with repeated measures on the last factor.

Subjects were recruited in groups of five for the "Social Attitudes" project. Upon entering the lab, they were escorted to individual cubicles containing a desktop PC and asked if they were Jewish or Asian. The experimenter then started the appropriate Inquisit program, which provided instructions prior to collecting data for each measure. After collecting demographic data (age, gender, ethnicity, religion, height, weight, perceived SES and family's annual income), the program administered the explicit status, attitude, and implicit measures (in that order). Explicit measures were administered first because IAT scores are less subject to controlled responding (Kim & Greenwald, 2002) and are therefore more immune to prior presentation effects. Subjects completed the Jewish-Christian or Asian-white IAT first, followed by the sizeism and classism IATs (in that order).<sup>4</sup> Upon completion, subjects were debriefed and thanked for their participation.

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4. We used this order due to a small practice effect for the IAT such that the more tests people perform, the smaller the effect size (Greenwald, 2001). Because we predicted *large* ingroup devaluation effects for minorities of particularly low status (e.g., for poor compared with overweight people, and for both of these groups compared with Jews or Asians), we inverted the status order for IAT administration in order to test this hypothesis conservatively.

## RESULTS

### GROUP DIFFERENCES IN STATUS PERCEPTIONS

The primary goal was to assess potential differences among minorities with respect to implicit ingroup bias, as a function of their perceived status. Based on the overall sample's status reports, group membership was coded as 1 = Poor People, 2 = Overweight people, 3 = Asians, and 4 = Jews. To assess whether minorities members themselves would mirror this ranking, we computed relative status scores that only pertained to their group, and that would mirror the bias measures (i.e., that would represent the difference between Jews vs. Christians, Asians vs. whites, overweight vs. slim people, or poor vs. rich people for Jews, Asians, overweight people and poor people, respectively). Again, high scores reflect greater relative status. Table 1 shows the summary statistics for this variable. Not surprisingly, each group perceived themselves to be lower in status, compared with majority groups, all  $t_s > 5.92$ ,  $ps < .001$ . However, a 4 (group status)  $\times$  2 (gender) ANOVA revealed the expected main effect for group status,  $F(3, 294) = 59.05$ ,  $p < .001$ . Simple effects tests showed that, surprisingly, Jews and Asians perceived themselves to be equal in relative status,  $t(135) < 1.00$ ,  $ns$ . However, both groups perceived themselves to be higher in relative status compared with overweight and poor people, all  $t_s > 3.45$ ,  $ps < .001$ . Finally, overweight people perceived themselves as higher in relative status than poor people,  $t(163) = 5.81$ ,  $p < .001$ .<sup>5</sup> Subject gender did not influence these results, both  $F_s < 1.35$ ,  $ns$ .

The relative status pattern shown in Table 1 suggests that Jews and Asians should be similar in implicit ingroup bias, but higher than both overweight and poor people. In addition, overweight people should show more implicit ingroup bias than poor people. By contrast, if explicit ingroup bias is less influenced by relative status, we should not expect these same differences to appear on a self-report measure of ingroup bias.

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5. The means (and standard deviations) for the components of each status differential were as follows (for Jews, Asians, overweight and poor people, respectively): Christians ( $M = 7.79$ ,  $SD = 1.61$ ); Jews ( $M = 5.72$ ,  $SD = 1.49$ ); whites ( $M = 8.19$ ,  $SD = 1.49$ ); Asians ( $M = 6.05$ ,  $SD = 1.48$ ); slim people ( $M = 8.08$ ,  $SD = 1.55$ ); overweight people ( $M = 4.16$ ,  $SD = 2.01$ ); rich people ( $M = 9.04$ ,  $SD = 1.37$ ); and poor people ( $M = 2.58$ ,  $SD = 1.71$ ).

TABLE 1. Summary Statistics for Minorities' Implicit and Explicit Measures

Measure	Group Status							
	Jews (N = 48)		Asians (N = 89)		Overweight (N = 53)		Poor (N = 112)	
	M	SD	M	SD	M	SD	M	SD
Relative Status Index	-2.06 <sup>a</sup>	2.41	-2.13 <sup>a</sup>	2.05	-3.91 <sup>b</sup>	2.91	-6.46 <sup>c</sup>	2.50
Implicit Ingroup Bias	87 <sup>a</sup>	210	57 <sup>a</sup>	172	-70 <sup>b</sup>	206	-238 <sup>c</sup>	229
Explicit Ingroup Bias	1.37 <sup>a</sup>	2.13	1.01 <sup>a</sup>	1.75	.07 <sup>b</sup>	2.30	1.04 <sup>a</sup>	2.38

*Note.* All measures are difference scores, such that high scores reflect relatively greater ingroup status (compared with dominants) or preference for subjects' ingroup compared to their outgroup. Implicit ingroup bias scores are shown in ms index (rounded up). All measures are significantly different from zero, except for explicit ingroup bias on the part of overweight people. Means within rows not sharing a superscript differ at the  $p < .05$  level.

#### GROUP DIFFERENCES IN INGROUP BIAS

Each IAT effect was computed as the difference between performing the minority + pleasant and minority + unpleasant tasks, such that high scores represented relatively more ingroup bias (for minorities).<sup>6</sup>

In order to compare ingroup bias across groups, we computed the *ingroup bias* IAT effect separately for each group. Thus, this measure reflects the Jewish-Christian IAT for Jewish subjects, the Asian-white IAT for Asian subjects, the sizeism IAT for overweight subjects, and the classism IAT for subjects of relatively low SES. As a reminder, we computed these effects only for subjects who reported minority membership in only one category. For example, the Jewish-Christian IAT effect is an index of ingroup bias for Jewish Americans who are not also Asian, overweight, or poor. Similarly, we computed thermometer differences scores separately for each group such that high scores indicate relatively more ingroup bias. Table 1 shows the results of the implicit and explicit

6. We followed standard procedures for analyzing IAT data (Greenwald et al., 1998). The first two trials of every block were eliminated due to their typically long latencies. Latencies less than 300 ms or greater than 3000 ms were recoded as 300 and 3000, respectively. Error trials were included in all analyses ( $M = 4\%$ ). Latencies were log-transformed to normalize the distribution. For ease of interpretation, we report Table 1's IAT results in a millisecond index.

ingroup bias measures for each group. In each case, positive difference scores reflect greater liking for subjects' own group, compared with the higher status group (i.e., ingroup bias). In each case, the attitude measure was significantly different from zero, all  $t_s > 2.47$ ,  $p_s < .05$ , except for explicit ingroup bias on the part of overweight people,  $t(52) < 1.00$ , *ns*.

To test the hypothesis that only implicit (not explicit) ingroup bias would be influenced by relative status, we submitted subjects' standardized implicit and explicit ingroup bias scores to a 4 (group status)  $\times$  2 (measure: implicit, explicit) mixed model ANOVA.<sup>7</sup> Results showed a main effect for group status, qualified by the expected Group Status  $\times$  Measure interaction,  $F(3, 298) = 21.67$ ,  $p < .001$ . Follow-up tests revealed main effects for group status on the implicit bias measure,  $F(3, 298) = 45.29$ ,  $p < .001$ , and the explicit bias measure,  $F(3, 298) = 3.61$ ,  $p < .05$ . However, these two main effects represented different patterns.

Table 1 shows that, as expected, Jews and Asians did not differ with respect to their IAT-assessed or self-reported ingroup bias, both  $t_s(135) < 1.07$ ,  $p_s > .28$ . By contrast, overweight people showed the predicted pattern of less ingroup bias on the IAT, compared with Jews and Asians, both  $t_s > 3.77$ ,  $p_s < .001$ . In fact, overweight people showed a tendency to automatically prefer slim people to their own group (i.e., implicit ingroup devaluation). In addition, overweight people showed only modest explicit ingroup bias, and it was less than that shown by Jews and Asians, both  $t_s > 2.71$ ,  $p_s < .01$ . Finally, relatively poor subjects showed a dramatic tendency to prefer rich people to poor people on the IAT (i.e., implicit ingroup devaluation), resulting in significant differences for this group when compared with Jews, Asians, or overweight people, all  $t_s > 4.50$ ,  $p_s < .001$ . By contrast, poor people showed substantial explicit ingroup bias. In fact, their explicit scores were similar to that shown by Jews and Asians, both  $t_s < 1.00$ , *ns*, and higher than that shown by overweight people,  $t(163) = 2.47$ ,  $p = .01$ .

To better illustrate these findings, we computed effect sizes (Cohen's  $d$ ) to represent minorities' implicit and explicit ingroup biases. Effect sizes were computed by dividing each subjects' difference score by the pooled SD for each measure. Conventional small, medium, and large effect sizes for  $d$  are .20, .50, and .80, respectively (Cohen, 1988). The results yielded a dramatic increase in implicit ingroup bias as a function of group status.

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7. Preliminary tests showed no effects for subject gender, all  $F_s < 3.45$ , *ns*. We therefore collapsed across this variable for the reported analyses.

Specifically, these effect sizes are  $-1.14$ ,  $-.34$ ,  $.27$ , and  $.41$  for poor people, overweight people, Asians, and Jews, respectively. The analogous scores for explicit ingroup bias were  $.48$ ,  $.03$ ,  $.47$ , and  $.63$ , respectively. It is noteworthy that evidence for negative ingroup bias scores, indicating automatic ingroup devaluation, was only found using the implicit measure, and only on the part of minorities who were judged to be particularly low in relative status (i.e., overweight and poor people).

#### RELATIONSHIPS BETWEEN INGROUP BIAS AND GROUP STATUS

Consistent with the effect size pattern described above, implicit ingroup bias and categorical group status (ranging from poor people to Jews) were positively associated,  $r(300) = .54$ ,  $p < .001$ . In addition, implicit ingroup bias and subjects' own perceptions of their relative status were positively correlated,  $r(300) = .36$ ,  $p < .001$ . Thus, minorities with the greatest disadvantage showed the least automatic preference for their group. These results show the expected direct link between relative status and ingroup bias, whether measured consensually or by individual differences. By contrast, explicit ingroup bias was negligibly correlated with both categorical group status,  $r(300) = .05$ , *ns*, and subjects' perceptions of their group's relative status,  $r(300) = -.01$ , *ns*. Taken together, the findings suggest that implicit own group attitudes reflect relative status differences (Jost & Banaji, 1994), whereas explicit attitudes are less influenced by this variable. Finally, and not surprisingly, the two status measures were correlated,  $r(300) = .60$ ,  $p < .001$ . However, the implicit and explicit ingroup bias measures showed only a weak relationship,  $r(300) = .10$ ,  $p = .08$ .

#### DID DEMOGRAPHICS MODERATE INGROUP BIAS BASED ON CLASS?

Although we found evidence for the pattern of results predicted by SJT, we wondered whether demographic differences might contribute variance to our findings. In particular, our low SES subjects ( $n = 112$ ) included 36 whites, 40 blacks, 24 Latinos, and 12 people who reported "other" as their ethnicity. To determine whether ethnic status might moderate ingroup bias for poor subjects, we submitted their bias measures to a 2 (measure: implicit, explicit)  $\times$  4 (ethnicity)  $\times$  2 (gender)

mixed model ANOVA, with repeated measures on the first factor. Results showed only a reliable main effect for measure,  $F(1, 104) = 28.60$ ,  $p < .001$ , such that poor people showed more explicit than implicit ingroup bias. The remaining effects were unreliable, all  $F$ s  $< 1.43$ , *ns*. In sum, the fact that some relatively poor subjects were “double minorities” did not affect their implicit preference for rich people.<sup>8</sup>

Finally, we checked on whether there might be less implicit classism shown for subjects who rated their family's SES as extremely or very low ( $n = 23$ ). We did this because people in higher income brackets might not view their group as particularly poor and thus, the classism IAT may have inadvertently tapped outgroup (rather than ingroup) devaluation. However, this selective group's IAT results continued to show ingroup devaluation ( $M = -183$ ,  $SD = 228$ ,  $d = -.87$ ), whereas their explicit bias results continued to show own group preference ( $M = 1.73$ ,  $SD = 2.30$ ,  $d = .80$ ). When we examined only subjects who rated their family's SES as extremely low ( $n = 6$ ), we found comparably strong implicit ingroup devaluation ( $M = -237$ ,  $SD = 177$ ,  $d = -1.13$ ), coupled with explicit own group preference ( $M = 3.00$ ,  $SD = 2.80$ ,  $d = 1.38$ ). Thus, the specific demographic makeup of our poor subjects did not influence the implicit classism findings.

#### DOMINANTS' STATUS PERCEPTIONS AND INGROUP BIAS

Although our research was focused on minorities' ingroup evaluation, our data allowed us to examine dominants' own group preference as a function of their relative standing. For subordinates, system justification motives are in conflict with personal and group-based esteem motives. In other words, “System-justification is the psychological process by which existing social arrangements are legitimized, even at the expense of personal and group interest” (Jost & Banaji, 1994, p. 2). By contrast, dominants' ingroup favoritism harmoniously serves ego-justification, group-justification, and system-justification functions. As a result, we expected that dominants would show stronger possession of automatic group esteem compared with minorities. However, if system-justification is predominantly a nonconscious defensive process, then dominants' implicit ingroup bias should also reflect differences in their relative societal position.

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8. Asians (100% Asian), Jews (90% white), and overweight people (70% white) did not differ sufficiently with respect to ethnicity to warrant similar analyses.

*Sample Description.* Due to substantial overlap, we could not select subjects who belonged to only one dominant group (e.g., the majority of rich people were also Christian and/or white). To afford relatively equal *ns*, we assigned subjects to the highest possible status category with the restriction that they not also be included in the minority subset. For example, if people were wealthy, they were assigned to the rich category irrespective of their slimness, race, or religion. If they were not wealthy but slim, they were assigned to the slim category irrespective of their race or religion. The remaining Christians in the Jewish-Christian condition were selected, as were the remaining whites in the Asian-white condition. The subset of dominants ( $N = 153$ ; 104 women), by group condition, consisted of 46 Christians (24 women), 39 whites (27 women), 30 slim people (27 women), and 38 people of relatively high SES background (26 women). Religion and ethnicity were determined by self-report. Based on government standards, slimness was determined by a Body Mass Index (BMI) of 18.50 or less. High SES was determined by a response of 6 or more on the 7-point SES scale. As a whole, the dominant subset contained 102 whites (67%), 18 Asian Americans (12%), 9 Latinos (6%) and 24 people (15%) who reported another ethnic identity. For rich people, 50% were white, 60% were Christian, and 82% were not slim. For slim people, 43% were Asian and 50% were Hindu. For whites in the Asian-white condition, 77% were Christian. For Christians in the Jewish-Christian condition, 80% were white.

*Status Perceptions.* Table 2 shows the summary statistics for the relative status index. Not surprisingly, each group perceived themselves to be higher in status compared with the pertinent minority group, all  $t_s > 8.41$ ,  $p_s < .001$ . However, a 4 (group status)  $\times$  2 (gender) ANOVA revealed the expected main effect for group status,  $F(3, 145) = 42.03$ ,  $p < .001$ . Simple effects tests showed that rich people's relative status ratings were higher than those of all other groups, all  $t_s > .5.83$ ,  $p_s < .001$ . In addition, slim people scored higher than Christians and Jews, both  $t_s > 2.89$ ,  $p_s < .01$ . Finally, whites and Christians perceived themselves to be equal in relative status,  $t(135) < 1.00$ , *ns*.<sup>9</sup> Subject gender did not influence these results, both  $F_s < 1.00$ , *ns*.

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9. The means (and standard deviations) for the components of each status differential were as follows (for Christians, whites, slim and rich people, respectively): Christians ( $M = 8.09$ ,  $SD = 1.24$ ); Jews ( $M = 5.70$ ,  $SD = 1.93$ ); whites ( $M = 8.13$ ,  $SD = 1.67$ ); Asians ( $M = 5.95$ ,  $SD = 1.97$ ); slim people ( $M = 7.53$ ,  $SD = 1.85$ ); overweight people ( $M = 3.70$ ,  $SD = 1.34$ ); rich people ( $M = 9.36$ ,  $SD = .91$ ); and poor people ( $M = 2.55$ ,  $SD = 1.33$ ).

TABLE 2. Summary Statistics for Dominants' Implicit and Explicit Measures

Measure	Group Status							
	Christians (N = 46)		Whites (N = 39)		Slim (N = 30)		Rich (N = 38)	
	M	SD	M	SD	M	SD	M	SD
Relative Status Index	2.39 <sup>a</sup>	1.91	2.18 <sup>a</sup>	1.85	3.83 <sup>b</sup>	2.42	6.82 <sup>c</sup>	1.80
Implicit Ingroup Bias	230 <sup>a</sup>	207	174 <sup>a</sup>	148	147 <sup>a</sup>	226	326 <sup>b</sup>	171
Explicit Ingroup Bias	1.17 <sup>a</sup>	1.74	1.05 <sup>a</sup>	1.92	.47 <sup>b</sup>	1.85	.47 <sup>b</sup>	2.47

*Note.* All measures are difference scores, such that high scores reflect relatively greater ingroup status (compared with minorities) or preference for subjects' ingroup compared to their outgroup. Implicit ingroup bias scores are shown in ms index (rounded up). All measures are significantly greater than zero, except for explicit ingroup bias on the part of slim and rich people. Means within rows not sharing a superscript differ at the  $p < .05$  level.

*Ingroup Bias.* Table 2 shows the results of the implicit and explicit ingroup bias measures for each group. Again, positive difference scores reflect greater liking for subjects' own dominant group, compared with the lower status group (i.e., ingroup bias). In each case, the IAT measure was significantly greater than zero, all  $ts > 3.45$ ,  $ps < .01$ . Results for the explicit measures were strikingly different in that only Christians and whites showed significant explicit ingroup bias, both  $ts > 3.42$ ,  $ps < .01$ . By contrast, slim and rich people did not, both  $ts < 1.18$ , *ns*.

The relative status pattern shown in Table 2 suggests that rich people should show the highest ingroup bias, followed by slim people, whereas Christians and whites should be similar in own group preference. To be consistent with the findings for minorities, this pattern should only be evident on the implicit measure. To test these hypotheses, we submitted dominants' standardized implicit and explicit ingroup bias scores to a 4 (group status)  $\times$  2 (measure: implicit, explicit) mixed model ANOVA.<sup>10</sup> Results showed a main effect for group status, qualified by the expected Group Status  $\times$  Measure interaction,  $F(3, 145) = 4.84$ ,  $p < .01$ . Follow-up tests revealed a main effect for group status on the implicit bias measure,  $F(3, 149) = 6.26$ ,  $p < .001$ , but not the explicit bias measure,  $F(3, 149) = 1.33$ , *ns*. Simple effects showed support for two of the predicted results. First,

10. Preliminary tests showed no effects for subject gender, all  $F_s < 1.97$ , *ns*.

rich people revealed more implicit ingroup bias than did all other groups, all  $t_s > 2.26$ ,  $p_s < .05$ . Second, whites and Christians did not reliably differ in their IAT scores,  $t(83) = 1.46$ ,  $ns$ . Unexpectedly, slim people showed similar IAT scores compared with whites and Christians, both  $t_s < 1.67$ ,  $ns$ .

Nonetheless, effect size computation revealed that dominants showed considerably more implicit than explicit own group preference, across the board. Specifically, the IAT effect sizes were 1.73, .78, .92, and 1.22, for rich people, slim people, whites, and Christians, respectively. The comparable explicit effect sizes were .24, .23, .52, and .58, respectively. These findings mirror past research, in which dominants have demonstrated robust automatic own group preference irrespective of their scores on self-reports.

*Correlational Analyses.* The computation of effect sizes for dominant's status scores revealed a switch from minorities' perceptions, such that Christians were rated as higher in relative status than were whites. We recoded the categorical status variable to reflect this change (1 = whites, 2 = Jews, 3 = slim, and 4 = rich). If dominants are susceptible to SJT's proposed linkage between nonconscious own group evaluation and status beliefs, they ought to show positive correlations between their IAT scores and (a) the categorical status variable and (b) their own ratings of relative worth. Consistent with the findings for minorities, automatic ingroup bias was reliably linked to both categorical status,  $r(151) = .22$ ,  $p < .01$ , and dominants' ratings of their relative status,  $r(151) = .26$ ,  $p = .001$ . In sum, dominants with the greatest advantage also showed the most automatic preference for their group. By contrast, dominants' explicit ingroup bias was unreliably related to categorical group status,  $r(151) = -.14$ ,  $p = .09$ , and to relative status ratings,  $r(151) = .05$ ,  $ns$ . Finally, the two status measures were positively correlated,  $r(151) = .64$ ,  $p < .001$ . However, the implicit and explicit ingroup bias measures showed almost no relationship,  $r(151) = .06$ ,  $p = .44$ .

Taken together, these results mirror those found for minorities. Most important, it was evident in both groups that only implicit (not explicit) own group favoritism reflected relative status differences, which is consistent with the proposition that system-justification is a nonconscious defense mechanism.

*Demographics Analysis.* The reliably larger ingroup bias effect shown for rich people is consistent with their greater status advantage, compared with the remaining groups. However, recall that wealthy partici-

pants were also likely to be dominant in two other categories (religion and race). To check on whether this might influence their ingroup bias, we submitted their attitude measures to a 2 (measure: implicit, explicit)  $\times$  4 (ethnicity: white, Asian, Latino, Other)  $\times$  5 (religion: Christian, Jewish, Muslim, Hindu, Other) mixed model ANOVA, with repeated measures on the first factor. Results showed only a reliable main effect for measure,  $F(1, 28) = 6.44, p < .05$ , such that rich people showed more implicit than explicit ingroup bias. The remaining effects were unreliable, all  $F_s < 1.97, ns$ . In sum, the fact that some high SES subjects were “multiple dominants” did not affect their implicit preference for rich people.<sup>11</sup>

#### COMPARING DOMINANTS AND SUBORDINATES

*Status Perceptions.* Our data also allowed us to directly compare status perceptions (and ingroup bias) for dominants and subordinates ( $N = 455, 293$  women). We first recoded minorities’ relative status perceptions to match dominants’ scores (i.e., high scores indicate that dominants possess greater status). Submitting this measure to a 4 (category)  $\times$  2 (dominance: high, low) ANOVA yielded only a main effect for category,  $F(3, 447) = 90.74, p < .001$ . On average, the class status difference was higher than differences based on appearance, religion, or race, all  $t_s > 7.86, ps < .001$ . Further, the appearance difference was higher than differences based on religion and race, both  $t_s > 4.48, ps < .001$ . Finally, status differences based on religion or race were statistically similar,  $t(440) < 1.00, ns$ . These results echo those found for the subsets of minorities and dominants. In addition, because the main effect for dominance was weak,  $F(3, 447) = < 1.00, ns$ , they show that people’s perceptions of relative status were consensual, irrespective of their status position within the group.

*Ingroup Bias.* Submitting the standardized ingroup bias scores to a 2 (measure: implicit, explicit)  $\times$  4 (category)  $\times$  2 (dominance) mixed model ANOVA revealed a Category  $\times$  Dominance interaction, qualified by a three-way interaction,  $F(3, 447) = 19.08, p < .001$ . Follow-up tests on the explicit measures showed only a main effect for category,  $F(3, 447) = 3.53, p < .05$ . Unexpectedly, overweight and slim people reported less own group favoritism ( $M = .21$ ) than did all other groups ( $M_s = .90, 1.28$ ,

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11. Slim people, Christians, and whites were not sufficiently diverse to allow for similar analyses.

and 1.02 for the class, religion, and race groups, respectively), all  $t_s > 2.16$ ,  $p_s < .05$ . The remaining groups did not reliably differ, all  $t_s < 1.28$ , *ns*. There were no reliable differences between dominants and subordinates on the self-report index, all  $t_s < 1.27$ , *ns*.

By contrast, the IAT showed a large main effect for dominance,  $F(1, 447) = 161$ ,  $p < .001$ . On average, dominants ( $M = 223$ ,  $SD = 199$ ) scored higher than did minorities, who showed a reverse effect ( $M = -70$ ,  $SD = 248$ ). There was also a Category  $\times$  Dominance interaction,  $F(1, 447) = 29.07$ ,  $p < .001$ . Simple effects showed that, in each category, dominants possessed more automatic ingroup bias than did minorities, all  $t_s > 3.68$ ,  $p_s < .001$ , but that this difference was especially large for rich and poor people. Computing the between groups effect sizes (i.e., the difference between dominants' and minorities' effect sizes, divided by their pooled  $SD$ ) for each category revealed a pattern of larger discrepancies between dominants' and minorities' implicit own group favoritism as a function of their relative status ( $d_s = .65, .81, 1.12$ , and  $2.86$ , for differences based on race, religion, appearance and class, respectively). By contrast, this pattern was not revealed using self-reports ( $d_s = .25, -.05, .75$ , and  $-.24$  for the differences between dominants and minorities based on race, religion, appearance and class, respectively).

*Correlational Analyses.* We computed a categorical status variable that reflected the evident social hierarchy (1 = poor, 2 = overweight, 3 = Asians, 4 = Jews, 5 = whites, 6 = Christians, 7 = slim, 8 = rich), which was strongly associated with subjects' relative status ratings,  $r(453) = .87$ ,  $p < .005$ . Consistent with the subset analyses, the relationship between implicit ingroup bias and categorical status was positive,  $r(453) = .64$ ,  $p < .001$ , as was the IAT's relationship with relative status ratings,  $r(453) = .58$ ,  $p < .001$ . By comparison, the relations between explicit ingroup bias and the categorical and individual difference status measures were negligible,  $r_s(453) = -.02$  and  $-.01$ , respectively, *ns*. Echoing the subset analyses, the relationship between the two attitude measures remained weak,  $r(453) = .06$ ,  $p = .15$ . After accounting for categorical status, this relationship modestly improved,  $r(452) = .10$ ,  $p = .02$ .

## DISCUSSION

Our primary aim was to investigate automatic ingroup bias on the part of four minority groups: Jews, Asians, overweight people, and people low in SES. Based on system justification theory, we predicted that minorities would show increasing evidence of own group devaluation as a

function of their relative status (Jost & Banaji, 1994). The lower the rung occupied in American society, the more minorities would implicitly prefer the dominant group over the lower status minority.

The findings support this central tenet of SJT in several ways. First, the highest status groups (Jews and Asians) showed more evidence of automatic ingroup bias compared with lower status groups (overweight and poor people, who also differed in the predicted direction). Second, the lowest status groups (overweight and poor people) showed automatic ingroup devaluation. Thus, when status differences between dominants and minorities are sufficiently large, minorities tend to automatically evaluate dominants more favorably than their own group. This pattern is consistent with SJT's argument that members of low status groups may nonconsciously adopt the perspective of majority members (i.e., show false consciousness) as a means of justifying the status quo (Jost & Banaji, 1994). Further, this reversal of bias is important to demonstrate, as past research has shown only less implicit ingroup bias on the part of minorities, compared with majority group members (Jost et al., in press; Rudman et al, 1999). Although we replicated this pattern in the present research, the more important result is the evidence for false consciousness on the part of particularly low status groups. Third, we found the expected correlation between minorities' relative status (whether measured by group category or individual differences) and their implicit ingroup bias scores. Moreover, dominants also showed these linkages. Taken together, the findings are consistent with SJT's argument that own group attitudes can be influenced by the relative worth accorded to one's group by society. Because only implicit (not explicit) attitudes were affected by relative status beliefs, the results provide promising support for a social structural theory of prejudice in which motives to legitimize the status quo are thought to be nonconscious. As a result, subordinate group members may unwittingly play a role in maintaining the status quo via internalizing the perspective of dominant groups.

It is noteworthy that own group devaluation as a function of minorities' relative status was not shown by explicit measures. In fact, self-reports produced results that were counter to the ingroup devaluation hypothesis. Our explicit findings are consistent with several studies indicating that minorities report personal and collective esteem levels that are equal to, or sometimes higher than, those of majority members (e.g., Crocker & Major, 1989; James, 1997; Tajfel & Turner, 1986; Twenge &

Campbell, 2002). Thus, at the conscious level, minorities appear able to compensate for a history of stigmatization in a variety of ways (Major & Schmader, 2001; Miller & Meyers, 1998). However, our implicit findings indicate that conscious motives and coping strategies are relatively ineffective when group esteem is automatically assessed. Consistent with SJT, minority groups of particularly low status suffered false consciousness in the form of internalized negative attitudes toward their own group. While these beliefs may be inaccessible to conscious introspection, they may nonetheless impede the ability of minority group members to overcome discrimination (Jost & Banaji, 1994).

Similarly, only implicit (not explicit) ingroup bias was associated with dominants' perceived relative status. In fact, their explicit bias scores were somewhat surprising in that rich people and slim people, although high in relative worth, did not report a significant preference for their group over poor and overweight people, respectively. By contrast, Christians and whites did show own group favoritism on the thermometer index. Perhaps dominants of particularly high social standing are especially sensitive to its implications and therefore "bend over backwards" to demonstrate egalitarianism. Alternatively, conscious preference may be related to the perceived threat imposed on dominants by minorities. It could be argued that poor and overweight people do not pose a significant threat to the social hierarchy for slim and rich people, whereas Jews and Asians, being closer in status to Christians and whites, may instantiate this threat and consequently, evoke a need to defend one's group.

#### ALTERNATIVE EXPLANATIONS

Although the present research found differences in automatic ingroup bias as a function of minority group members' status, there may be additional explanations for why Jews and Asians showed greater ingroup bias, compared with other minority groups. For example, they may enjoy strong family ties and community support that obviate any inclination to devalue their own group. Moreover, Jews and Asians may benefit from society's positive stereotypes about their groups (e.g., as high on ambition and intellect), whereas positive stereotypes about other groups may involve less valued traits (e.g., joviality for overweight people). Perhaps the value of the positive traits ascribed to Jews and Asians helps to offset any tendency to internalize beliefs that justify their lower

status, relative to Christians and whites. These social and cognitive buffers may go hand-in-hand with status perceptions, but future research should attempt to tease them apart to examine their relative contribution to automatic ingroup bias.

The tendency shown in the present research for overweight and poor people to implicitly devalue their ingroups may be due, in part, to the fact that these groups have experienced less sociocultural support (e.g., in the form of legislation to ensure equal opportunities) than groups based on sex, race, age, or religion. As a result, these minorities may experience less cohesion and awareness that they constitute a "group" (and therefore, a social force) *per se*. Thus, future research might examine variance in ingroup bias as a function of collective identity and perceived social support for one's group. Similarly, the fact that slim people showed evidence of implicit bias equivalent to whites and Christians was surprising, and indicates that status perceptions alone are not responsible for automatic own group favoritism. As with overweight and poor people, this unexpected result may reflect the fact that slim people experience less solidarity, or that stereotypes about this group are not particularly positive (e.g., energetic, athletic).

In addition, poor people's particularly strong ingroup devaluation may be partly attributable to the dominant ideology that people from all SES backgrounds can achieve economic success if they work hard enough and are willing to make sacrifices (i.e., that everyone can achieve the "American dream"; Kleugel & Smith, 1986). However, a more prosaic explanation concerns the group tokens used in the classism IAT (e.g., welfare and food stamps), which may have represented a class of people substantially poorer than the student subjects assessed here. To check on this, we analyzed responses based solely on stimuli that were synonymous with poor or rich people (poor, lower class, poverty, rich, upper class, wealth), and found essentially identical results for the classism IAT. This is consistent with research findings indicating that the group tokens used in the IAT are less important than the category labels. For example, De Houwer (2001) demonstrated similar levels of automatic ingroup bias in British subjects who completed IATs using either positive or negative exemplars of their group (as contrasted with negative or positive exemplars of foreigners, respectively). Thus, we do not believe that the specific group tokens we

used can explain why poor people showed automatic ingroup devaluation.<sup>12</sup>

In the present research, there were undoubtedly stronger valence asymmetries used to represent groups based on class and appearance, compared with groups based on religion and race. However, there are four reasons (beyond De Houwer, 2001) to suspect that group token valence asymmetries were not responsible for the implicit false consciousness effect. First, IAT effects covaried with individual differences in perceived group status. If valence was driving these effects, then overweight and poor subjects would have shown outgroup preference irrespective of their relative status scores. Second, explicit attitude scores were not affected by the use of similar descriptors in the thermometer measure (i.e., slim, fat, rich, poor). On the contrary, poor people scored high on this measure, whereas rich and slim people scored low. Third, when we analyzed IAT effects for poor people that used only synonyms for rich or poor (comparable to the thermometer measure), we found no differences in our results (see above). Fourth, slim people did not show stronger implicit ingroup bias than did whites and Christians, even though the sizeism IAT's group tokens were more obviously asymmetrically valenced than were those used for the race and religion IATs. Taken together, it seems unlikely that descriptor valence differences were responsible for implicit false consciousness effects.

Our IAT group tokens may also have differed in terms of their familiarity. However, considerable research has shown that group token familiarity differences do not influence the IAT (e.g., Dasgupta, McGhee, Greenwald, & Banaji, 2000; Ottaway, Hayden, & Oakes, 2001; Rudman et al., 1999).<sup>13</sup> The general pattern shown is that robust IAT effects are

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12. This is not to suggest that valence asymmetries never affect the IAT. For example, Rudman, Greenwald, & McGhee (2001) found significant differences in IAT gender stereotyping effects depending on the valence of the attributes used to represent power and weakness. When attributes were matched on valence, strong evidence of implicit sex stereotypes were found for men and women alike. However, when attributes connoted superiority for one group over the other (e.g., when power was represented favorably and weakness negatively), only the favored gender showed a strong effect (in this case, men).

13. For example, Rudman et al. (1999, Exp. 3) manipulated the familiarity of American and Russian leader names and found no difference in pro-American bias between groups (on the part of U.S. subjects). The condition in which American leaders were highly familiar (Jefferson, Lincoln) and Russian leaders were unfamiliar (Suslov, Mikoyan) yielded virtually the same effect size as did the condition in which American leaders were unfamiliar (Fillmore, Pierce) and Russian leaders were familiar (Lenin, Stalin);  $d_s = 1.08$  and  $.98$ , respectively.

found when group tokens are asymmetrically familiar, as well as when they are matched on familiarity (see also Ashburn–Nardo, Voils, & Monteith, 2001).

Another issue concerns whether mode changes across group tokens influence the IAT. First, we consider the use of names versus pictures. Using the IAT website,<sup>14</sup> Nosek, Banaji, and Greenwald (2002) gathered data from hundreds of thousands of respondents that afford comparing the black–white IAT when names versus photos were used. They found very little difference in the overall effect sizes. For example, blacks showed *ds* of  $-.28$  and  $-.16$ , respectively, suggesting a tendency to prefer whites over blacks irrespective of the mode (the comparable effect sizes for whites were  $1.04$  and  $.83$ ). Similarly, Rudman, Feinberg, and Rey (2001) used surnames in the Asian–white IAT (e.g., Chang, Tanaka vs. Miller, Tyler) and found results that echo those presented here. For Asians, the ingroup bias effect size was  $d = .38$ , nearly identical to that found in the present research,  $d = .34$ . (The comparable effects sizes for whites were  $.73$  and  $.92$ , respectively). Second, we consider the use of names versus descriptors. Richeson & Ambady (2000) used descriptors to represent blacks (e.g., Afro, jazz, ghetto, lazy) and whites (e.g., blonde, Catholic, clueless, sheltered). Using only female subjects, they found effect sizes for blacks ( $d = -.33$ ) and whites ( $d = .82$ ) that were comparable to those found by Nosek et al. (2002), who used names or photos (see above). Third, we consider the use of descriptors versus photos. Swanson, Rudman, & Greenwald (2001; Experiments 1 and 3) found that, for nonsmokers, representing smoking in the form of descriptors (e.g., cigarettes, nicotine, smoking) or photos (e.g., pictures of cigarettes in ashtrays) had little effect on their anti–smoking IAT scores ( $ds = -1.45$  and  $-1.86$ , respectively).<sup>15</sup> In sum, although we cannot be completely certain that group tokens had no effect on our findings, our comparative analysis of past IAT findings suggests that this is unlikely.

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14. The IAT website address is: <http://buster.cs.yale.edu/implicit>.

15. Although the results differed for nonsmokers, this was likely due more to changes in the contrasts used in each experiment (i.e., the contrasts used for the descriptor study were sweets or exercise, whereas the contrast used for the photo study was nonsmoking). Smokers showed greater implicit liking for their habit when the contrast was nonsmoking.

## STATUS BELIEFS AS A LEGITIMIZING MECHANISM

Status beliefs differ from ingroup bias effects in that they are consensual, and “their apparent consensuality gives status beliefs social validity in the eyes of those who encounter them” (Ridgeway, 2001, p. 257). This is how status beliefs serve as a legitimizing mechanism for the status quo. People of all groups must grant that some groups (dominants) are viewed by society as more competent, able, and of higher worth than are others (subordinates). Subordinates are then forced into a conflict between personally valuing their group and the social fact of their group's lower value, which can lead to ambivalence toward the ingroup (Jost, Burgess, & Mosso, 2001). By contrast, dominant group members do not experience this conflict because personal and social perspectives toward their group converge. As a result, they show more robust levels of automatic ingroup bias.

The conflict that subordinates face is akin to cognitive dissonance. To bring coherence to their belief system, they can moderate either their status beliefs (i.e., deny reality) or their own-group favoritism. The latter is the likely candidate because it is individually based and therefore easier to change (Festinger, 1957). The result is that subordinates may (tacitly) accept society's viewpoint, undermining the probability that they will challenge the status quo. A major contribution of the present research is to show that consistency between the social and personal perspectives on the part of minorities is more evident at the automatic level than at the level of self-report (see also Greenwald, Banaji, Rudman, Farnham, Nosek, & Mellott, 2002).

## CONCLUSION

We investigated automatic ingroup bias in minority group members under the auspices of system-justification theory, a social structural model arguing that minorities may suffer false consciousness in the form of ingroup devaluation (Jost & Banaji, 1994). To do so, we examined groups based on religion, ethnicity, appearance, and socioeconomic class. The breadth of this spectrum allowed us to examine differences in ingroup bias as a function of differences in relative social standing. Whereas high status minorities possessed significant automatic ingroup bias, low status minorities were susceptible to implicitly viewing their group through the lens of society (i.e., as lower in worth than dominant group members). False consciousness may have serious consequences for minorities by preventing

them from challenging the social system in which they are subordinates. It is therefore important to consider the implicit, as well as explicit, barriers that minorities face as they strive toward social parity.

## APPENDIX

### CATEGORY LABELS AND STIMULUS WORDS USED FOR IAT MEASURES

#### Attributes

*Pleasant*: happy, smile, peace, cuddle, joy, warmth, paradise, love

*Unpleasant*: bad, pain, awful, disaster, grief, agony, tragedy, brutal

#### Group Tokens

*Jews*: Shapiro, Cohen, Katz, Schwartz, Friedman, Goldberg, Silverstein, Rosenbaum

*Christians*: Miller, Taylor, Johnson, Baker, Smith, Andrews, Thompson, Benson

*Overweight people*: fat, overweight, heavy, plump, large, overweight, chubby, obese

*Slim people*: slim, thin, slender, lanky, lean, slight, trim, skinny

*Rich people*: rich, upper class, wealth, millionaire, jet set, limousine, caviar, penthouse

*Poor people*: poor, lower class, welfare, food stamps, second hand, bus rider, macaroni, poverty

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*Note.* In the Asian–white IAT, group tokens were represented graphically. The category labels used were Asians and whites.

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