Research Article

The Contact Hypothesis Revisited

Status Bias in the Reduction of Implicit Prejudice in the United States and Lebanon

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ABSTRACT—Although 50 years of research demonstrate that friendly intergroup contact reduces intergroup prejudice, the findings are based solely on self-reported, explicit prejudice. In two parallel experiments examining intergroup contact and prejudice—between Whites and Blacks in the United States (Experiment 1) and between Christians and Muslims in Lebanon (Experiment 2)—we examined whether intergroup status differences moderate contact effects on implicit prejudice, as well as explicit prejudice. Both experiments replicated the standard effect of contact on explicit prejudice. They also demonstrated that intergroup contact reduces implicit prejudice among low-status groups. In Experiment 1, the implicit prejudice of Blacks toward Whites (but not Whites toward Blacks) was reduced as a function of friendly contact. In Experiment 2, the implicit prejudice of Muslims toward Christians (but not Christians toward Muslims) was reduced as a function of friendly contact.

IMPLICIT AND EXPLICIT PREJUDICE

Numerous findings of null or weak correlations between implicit and explicit measures of prejudice have led some researchers to conclude that these two forms of prejudice are products of distinct cognitive processes (e.g., Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002; Dovidio, Kawakami, & Gaertner, 2002; Fazio, Jackson, Dunton, & Williams, 1995; Greenwald & Banaji, 1995). Despite decades of research documenting effects of contact on explicit prejudice, little is known about the relation between contact and implicit prejudice.

Friendly contact with out-groups is known to reduce prejudice when the contact involves close, equal-status interpersonal interactions (Allport, 1954; Pettigrew, 1998; Pettigrew & Tropp, 2006). However, this effect has been shown exclusively by examining what is now termed explicit prejudice—that is, feelings about out-groups that are consciously accessible, seemingly controllable, and self-reported. In recent years, an additional form of prejudice has been identified: implicit prejudice, which may not be always consciously accessible, may be difficult or impossible to control, and is typically captured using reaction time measures of cognitive association (e.g., Devine, 1989; Greenwald & Banaji, 1995). Despite decades of research documenting effects of contact on explicit prejudice, little is known about the relation between contact and implicit prejudice.

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ately favor high-status groups in society, one might expect social status to moderate the degree to which intergroup contact reduces implicit prejudice.

**STATUS DIFFERENCES AND IMPLICIT PREJUDICE**

Broadly recognized social-status hierarchies are known to be reinforced by ideological thinking. For example, members of low-status groups often have beliefs that favor higher-status groups or otherwise legitimize existing differences in group status. Such beliefs have been referred to as “false consciousness” (Jost & Banaji, 1994), “legitimating myths” (Sidanius & Pratto, 1999), and “legitimating ideologies” (Major et al., 2002). Beliefs that favor high-status groups are involved in a variety of asymmetries in intergroup processes. For example, out-group favoritism is greater among low-status groups than among high-status groups (Clark & Clark, 1947; Hewstone & Ward, 1985; Hinkle & Brown, 1990; Jost & Burgess, 2000; Sachdev & Bourhis, 1987), and low-status groups endorse more negative in-group stereotypes than high-status groups do (Glick & Fiske, 2001; Jost & Banaji, 1994).

Implicit prejudice may be especially sensitive to social status. Expressions of implicit out-group prejudice may be smaller among members of low-status groups than among members of high-status groups (Jost, Pelham, & Carvallo, 2002; Rudman, Greenwald, Mellot, & Schwartz, 1999); members of low-status groups sometimes even exhibit an implicit preference for high-status groups over their own group (Ashburn-Nardo, Knowles, & Monteith, 2003; Rudman, Feinberg, & Fairchild, 2002). Prejudices commonly reflected from situation to situation, and aggregated in the broader society as status, not only may establish implicit prejudice, but also may regulate implicit prejudice change (as a function of, e.g., intergroup contact).

Given that high-status groups are generally favored in society by definition, and given empirical findings of asymmetry in the implicit prejudice of high- and low-status groups, one might expect corresponding asymmetries in the effect of intergroup contact on implicit prejudice. Specifically, it may be easier for friendly interpersonal contact to reduce implicit prejudice toward groups for whom positive associations are broadly represented in society, that is, high-status groups, and more difficult for friendly interpersonal contact to reduce implicit prejudice toward groups for whom positive associations are not as broadly represented in society, that is, lower-status groups.

**THE CONTACT HYPOTHESIS AND EXPLICIT AND IMPLICIT PREJUDICE**

In the present research, we investigated how social status may moderate the relation between friendly contact and both implicit and explicit prejudice. We explored three plausible outcomes. First, contact may reduce out-group prejudice toward high-status and low-status groups equivalently. Second, contact may reduce high-status groups’ prejudice toward low-status groups more than it reduces low-status groups’ prejudice toward high-status groups, an outcome we call *high-status enlightenment*. Indeed, a recent meta-analysis (Pettigrew & Tropp, 2006) of 698 studies on the contact hypothesis showed that contact had a greater effect on high-status groups’ explicit prejudice than on low-status groups’ explicit prejudice (this difference was small but statistically significant). Third, contact may reduce low-status groups’ out-group prejudice toward high-status groups more than it reduces high-status groups’ out-group prejudice toward low-status groups, an outcome we call *low-status deference*. Low-status deference is implied by theories that postulate the general maintenance of favorable biases toward high-status groups (e.g., Jost & Banaji, 1994; Sidanius & Pratto, 1999). Although low-status deference is not commonly found in studies of explicit prejudice (Pettigrew & Tropp, 2006), implicit prejudice may be especially sensitive to broad social hierarchies (e.g., Banaji & Greenwald, 1994; Devine & Monteith, 1999; Greenwald & Banaji, 1995) and therefore may be more likely to show this outcome.

To explore the effects of status and contact on intergroup prejudice, we conducted two parallel studies of implicit and explicit prejudice, investigating two dimensions of status in two cultures in different parts of the world. Experiment 1 utilized a sample of Whites and Blacks living in the United States. Experiment 2 utilized a sample of Christians and Muslims living in Beirut, Lebanon. Although many people are familiar with racial prejudice in the United States, religious prejudice in Lebanon may be less familiar. Briefly, most people in Lebanon are either Muslim or Christian, and the two groups are about equal in number. The Lebanese Civil War, which lasted from approximately 1975 to 1991, involved many kinds of interreligious fighting, but largely reflected Muslim-Christian conflict. The war crippled the country and is estimated to have resulted in the deaths of more than 100,000 citizens. Interreligious conflict remains threatening today, 15 years after the war’s end. Christians in Beirut have historically enjoyed greater status than Muslims, a perception corroborated in this research.

**METHOD**

In both experiments, participants completed measures of explicit and implicit intergroup prejudice after completing a series of questionnaires that assessed intergroup status and interpersonal contact.

**Subjects**

For Experiment 1, a sample of 128 White (103 women, 25 men) and 32 Black (26 women, 6 men) students was recruited from undergraduate psychology classrooms at DePaul University; the students received partial course credit for their participation. For Experiment 2, a sample of 46 Christian (20 women, 26 men)
and 37 Muslim (25 women, 12 men) students from psychology classrooms at the American University of Beirut (AUB) were recruited as part of a class exercise.1

Materials and Procedure
Participants completed surveys that measured perceived status differences between groups in society, out-group contact, explicit prejudice, and implicit prejudice.

Measures of Status
Participants judged groups’ status on 9-point scales from 1, low status, to 9, high status. In Experiment 1, participants rated the status of Whites/European Americans and Blacks/African Americans. In Experiment 2, participants rated the status of Christian groups (Catholic, Orthodox, and Maronite) and Muslim groups (Sunni and Shiite).

Measures of Out-Group Contact
In Experiment 1, the first two questions asked, “How many friends do you have who are White/European American?” and “How many friends do you have who are Black/African American?” Response options were “none” (0), “some” (1), “many” (2), “most” (3), and “all” (4). The next two questions asked, “How close do you feel to your closest White/European American friend?” and “How close do you feel to your closest Black/African American friend?” Response options for these questions were “extremely close” (5), “very close” (4), “moderately close” (3), “somewhat close” (2), “not very close” (1), and “I have no close White/European American [Black/African American] friend” (0). A final series of questions began with “How many romantic partners have you had in your life?” with response options of “zero,” “one,” “two,” “three,” and “more than three.” This question was followed by two items asking, “How many people have you had a romantic involvement with who are White/European American?” and “How many people have you had a romantic involvement with who are Black/African American?” The response options for these final two questions were “none” (0), “one” (1), “some” (2), “most” (3), and “all” (4).2 In Experiment 2, the items were identical, except that “White/European American” and “Black/African American” were replaced by “Christian” and “Muslim.”

Out-group contact was calculated by subtracting in-group contact from out-group contact for each of the three contact items. These difference scores were standardized and averaged, and yielded acceptable reliability (α = .76 and .74 for Experiment 1 and Experiment 2, respectively). Scores were standardized across all participants in each experiment, rather than standardized within each group, to control for intergroup differences in out-group contact.

Explicit Prejudice: Social Distance
In Experiment 1, social distance was measured by a set of items about interaction with Whites and an identical set about interaction with Blacks. All items had 9-point scales anchored at strongly agree (1) and strongly disagree (9). The questions were as follows:

- “I would marry or get involved in a long-term relationship with a White/European American [Black/African American].”
- “I would become close friends with a White/European American [Black/African American].”
- “I would work for someone who is a White/European American [Black/African American].”
- “I would invite a White/European American [Black/African American] over for dinner.”
- “I would marry or get involved in a long-term relationship with a White/European American [Black/African American].”
- “I would live next door to a White/European American [Black/African American].”
- “I would live on the same block as a White/European American [Black/African American].”

Experiment 2 used the same items, but replaced “White/European American” and “Black/African American” with “Christian” and “Muslim.”

The items scaled well: In Experiment 1, Cronbach’s α was .98 for the closeness-to-Whites scale and .94 for the closeness-to-Blacks scale. In Experiment 2, α was .93 for the closeness-to-Christians scale and .91 for the closeness-to-Muslims scale. In-group bias in Experiment 1 was calculated by subtracting scores on the closeness-to-Blacks scale from scores on the closeness-to-Whites scale for the White participants and by subtracting scores on the closeness-to-Whites scale from scores on the closeness-to-Blacks scale for the Black participants. In-group bias in Experiment 2 was calculated by subtracting scores on the closeness-to-Muslims scale from scores on the closeness-to-Christians scale for the Christian participants and by subtracting scores on the closeness-to-Christians scale from scores on the closeness-to-Muslims scale for the Muslim participants.3

Explicit Prejudice: Feelings
Participants expressed explicit attitudes toward both their group and their respective out-group on standard feeling-thermometer scales. In Experiment 1, participants expressed feelings about “African Americans/Blacks” and “White people” using two feeling thermometers in which 0 was labeled very unfavorable

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1 AUB students are typically Lebanese. The study was conducted in English, the official language of instruction at AUB. Christians included students who identified themselves as Catholic, Orthodox, Protestant, or Maronite. Muslims included students who identified themselves as Sunni or Shiite.

2 For these questions, some participants who had had only one partner indicated “one,” whereas others with only one partner indicated “all.” Consequently, for consistency, those who indicated “one” were recoded as “all” for further analyses.

3 Difference scores were used to keep the measures parallel with the implicit association task, which requires difference scores in its computation. Nevertheless, the results are conceptually identical whether one uses the direct measures of out-group prejudice or difference scores.
and 100 was labeled favorable. In-group bias was calculated by subtracting the Black rating from the White rating for White participants and by subtracting the White rating from the Black rating for Black participants. In Experiment 2, participants expressed explicit attitudes toward Muslims and Christians with a single item for each: “How do you feel about Muslims [Christians] in general?” Responses were recorded on a 9-point scale from 1, very cold, to 9, very warm. In-group bias was calculated by subtracting the Muslim rating from the Christian rating for Christian participants and the Christian rating from the Muslim rating for Muslim participants (see footnote 3).

**Implicit Prejudice**

We assessed implicit prejudice with the implicit association task (IAT)—a popular index of implicit attitudes that, like the classic Stroop (1935) procedure, uses an interference paradigm (e.g., Lowery et al., 2001). The IAT captures the degree to which positive versus negative associations to a given group facilitate category judgments. Implicit attitudes toward groups were captured by using names that were identifiably Black or White (Experiment 1) or names that were identifiably Christian or Muslim (Experiment 2), along with words known to be highly positive (e.g., happy, clean) or negative (e.g., hate, dirty). In two critical blocks, participants paired White (or Christian) names and positive words (e.g., check on the right side of a stimulus word) and Black (or Muslim) names and negative words (e.g., check on the left side of a stimulus word); in two other critical blocks, the required response paired White (or Christian) names with negative words and Black (or Muslim) names with positive words. In each block, participants were given 25 s to respond to as many names and words as possible. The degree of implicit out-group prejudice was indicated by the degree to which more items were completed when the out-group was paired with negative words than when the out-group was paired with positive words.

Participants completed the IAT in groups. In Experiment 1, four pages served as practice trials; each of these pages listed words from only one category (Black/African-American names, White/European American names, pleasant words, or unpleasant words). The following four pages presented the critical trials; both words and names were listed down the center column of each page (each page served as one 25-s block). There were two pro-Black pages, on which participants checked Black names and pleasant words on one side and White names and unpleasant words on the other side, and two pro-White pages, on which participants checked White names and pleasant words on one side and Black names and unpleasant words on the other side. Implicit out-group prejudice was calculated by subtracting the total score for the pro-Black blocks from the total score for the pro-White blocks for White participants and by subtracting the total score for the pro-White blocks from the total score for the pro-Black blocks for Black participants.

Experiment 2 replicated Experiment 1, replacing White and Black names with Christian and Muslim names. Implicit out-group prejudice was calculated by subtracting the total score for the pro-Muslim blocks from the total score for the pro-Christian blocks for the Christian participants and by subtracting the total score for the pro-Christian blocks from the total score for the pro-Muslim blocks for Muslim participants.

**RESULTS**

**Perceived Intergroup Status**

To test whether participants recognized status differences in their societies, we ran a 2 (participant group) \( \times \) 2 (target group) mixed-measures analysis of variance (ANOVA), with status of the target groups measured within subjects for each experiment. In both experiments, participants corroborated common perceptions of the reigning status hierarchies. In Experiment 1, greater status was perceived for Whites (\( M = 8.45, SE = 0.071 \)) than for Blacks (\( M = 4.47, SE = 0.194 \)), \( F(1, 158) = 380.02, p_{rep} > .999, \eta^2 = .706 \). The effect was equally strong for Whites and Blacks, as indicated by a nonsignificant interaction, \( F(1, 158) < 1 \). In Experiment 2, greater status was perceived for Christians (\( M = 6.33, SD = 1.33 \)) than for Muslims (\( M = 5.74, SD = 1.45 \)), \( F(1, 76) = 10.09, p_{rep} = .984, \eta^2 = .117 \). The effect was equally strong for Christians and Muslims, as indicated by a nonsignificant interaction, \( F(1, 76) < 1 \).

**Intergroup Contact**

In Experiment 1, difference scores for number of friends (in-group friends minus out-group friends) showed that Whites had relatively more in-group friends (\( M = 1.70, SD = 0.88 \)) than Blacks did (\( M = 0.97, SD = 1.31 \)), \( t(158) = 3.79, p_{rep} = .996 \). There were no differences between Blacks and Whites in the reported closeness of the closest in-group friend relative to the reported closeness of the closest out-group friend. Neither did Blacks and Whites differ in the number of in-group romantic relationships relative to the number of out-group romantic relationships (\( t < 1.2 \)). In Experiment 2, the reported closeness toward the closest in-group friend relative to the reported closeness toward the closest out-group friend was significantly greater for Christians (\( M = 0.72, SD = 1.27 \)) compared with Muslims (\( M = 0.11, SD = 0.94 \)), \( t(81) = 2.43, p_{rep} = .937 \). Christians and Muslims did not differ significantly in their difference scores for numbers of friends (\( t = 1.04 \)) and romantic relationships (\( t = 1.5 \)). We statistically controlled for the greater relative in-group friendships for Whites and Christians by standardizing these contact items across all participants rather than within group, so that any score for contact indicated the same amount of relative out-group contact for both groups in each study.
Contact and Explicit Prejudice

To examine the relation between friendly contact and explicit prejudice, we ran a series of regressions predicting social distance and intergroup feelings for each experiment (see Fig. 1). These analyses included main effects for contact (a continuous measure from more to less contact) and for participant’s group membership (a dichotomous measure indicating higher vs. lower status) and an interaction term that multiplied the centered contact measure by the participant’s group membership (see Aiken & West, 1996).

In both experiments, greater contact was associated with reduced social distance from the out-group (Experiment 1: \( \beta = -.176, p_{rep} = .914 \); Experiment 2: \( \beta = -.541, p_{rep} > .999 \)) and with less negative feelings toward the out-group (Experiment 1: \( \beta = -.310, p_{rep} = .998 \); Experiment 2: \( \beta = -.422, p_{rep} = .998 \)). These results replicate the well-documented effect of contact on explicit out-group prejudice. In Experiment 1, Whites and Blacks expressed equal levels of out-group prejudice on both measures. In Experiment 2, Christians and Muslims expressed equal levels of out-group prejudice as measured by intergroup feelings, but the measure of social distance showed greater out-group prejudice among Christians than among Muslims (group main effect \( \beta = -.201, p_{rep} = .912 \)). We found no evidence of high-status enlightenment, which would have been indicated by significant group-by-contact interactions (all \( t < 1.4 \)).

Contact and Implicit Prejudice

To test the relation between friendly contact and implicit prejudice, we ran the same regressions with implicit prejudice, rather than explicit prejudice, as the outcome variable. As
shown in the bottom graphs in Figure 1, although greater contact was associated with reduced out-group prejudice (Experiment 1: $\beta = -.208, p_{rep} = .961$; Experiment 2: $\beta = -.228, p_{rep} = .968$), high-status groups expressed greater in-group favoritism than low-status groups regardless of contact (Experiment 1: $\beta = -.196, p_{rep} = .950$; Experiment 2: $\beta = -.326, p_{rep} = .984$), a result consistent with the literatures documenting general favoritism toward high-status groups. More important, both experiments demonstrated that intergroup contact reduced prejudice toward high-status groups more than prejudice toward low-status groups, as indicated by significant Group Status $\times$ Contact interactions (Experiment 1: $\beta = -.209, p_{rep} = .913$; Experiment 2: $\beta = -.303, p_{rep} = .851$). This finding is reflected in the simple slopes shown in the bottom row of Figure 1. Whereas Blacks in the United States and Muslims in Lebanon exhibited a strong and statistically significant decrease in implicit out-group prejudice as a function of intergroup contact, Whites in the United States and Christians in Lebanon did not. This interaction reflects low-status deference and is congruent with the idea that intergroup contact facilitates positive implicit out-group attitudes to the extent that positive attitudes toward the out-group are broadly represented in society. Put another way, it is easier to generalize friendly intergroup experience to attitudes about high-status groups than to attitudes about low-status groups.

**DISCUSSION**

Prejudice research, including research on the contact hypothesis, is incomplete without taking into consideration broad intergroup status differences, as well as differences between explicit and implicit attitudes. We found that intergroup contact predicted reduced implicit prejudice toward out-groups, but only for the lower-status groups in our samples; that is, the results demonstrated low-status deference. These results obtained whether status involved Whites and Blacks in the United States or Christians and Muslims in Lebanon. The findings suggest that contact-induced changes in implicit prejudice are facilitated to the degree that they resonate with broadly recognized status differences. As regards explicit prejudice, although we were able to capture the general contact effect for both high- and low-status groups, we found no evidence of high-status enlightenment, which has been identified in a recent meta-analysis of contact studies (Tropp & Pettigrew, 2005). However, the high-status enlightenment shown in the meta-analysis was statistically significant but not dramatic (an average correlation of $- .18$ for minority status groups, compared with $- .23$ for majority status groups, an average difference of $- .05$), and was not found in many other past studies of the contact effect either. Further research is necessary to identify the conditions that elicit enlightenment and deference effects in explicit and implicit prejudice.

The dissociated effects of contact on implicit and explicit prejudice raise important new questions. In particular, why is there a status asymmetry in the relation between contact and implicit prejudice but not explicit prejudice? One possibility is suggested by the literature on power and interpersonal interactions, which demonstrates that low-power people are especially mindful in interactions with high-power people, whereas high-power people are especially heuristic and stereotypic in interactions with low-power people (Fiske, 1993; Keltner, Gruenfeld, & Anderson, 2003). Perhaps practice makes perfect: Over time, the effortful mindfulness of low-status people navigating common disadvantages in a hierarchical society may become automatized (Gollwitzer & Moskowitz, 1996; Moskowitz, 2001), eventuating in a kind of implicit accommodation toward high-status out-groups. In contrast, perhaps habitual inattention to members of low-status groups results in relatively little accommodation in the implicit attitude systems of members of high-status groups. Given the complex relations among status, contact, and prejudicial attitudes, further research is necessary to identify when and how status moderates prejudice and intergroup relations.

An important caveat concerning causality is in order. Contact was measured, not manipulated, and consequently it is unclear whether contact caused the improvement in attitudes or whether more positive attitudes caused increased intimate contact. In reality, the relation between contact and attitudes is probably recursive, although our data cannot tease apart the causal relationships. However, the finding reported here is broadly congruent with research implicating friendship patterns in the dynamics of implicit prejudice. For example, adolescents engage in more negative implicit stereotyping about adolescents to the extent that they count adults as their friends (Gross & Hardin, in press).

The results presented here do not paint an optimistic picture regarding broad-based change in implicit prejudice toward low-status groups. Even friendship and romance with Blacks and Muslims were not associated with reduced implicit prejudice toward Blacks or Muslims in our experiments. Indeed, we found that Christians with the closest contact with Muslims, and Whites with the closest contact with Blacks, had the same amount of implicit prejudice as those with the least contact. These findings suggest that reducing common implicit prejudice toward low-status groups likely depends in part on broad, institutional, society-wide improvement in the actual status of low-status groups, which would likely elicit increasing proportions of situations that call out positive associations. However, given the surfeit of social contexts that so readily disadvantage Blacks and Muslims in the world today, including in Lebanon with its easy access to CNN and the global media, such changes remain a distant prospect.

**REFERENCES**


