Evidence of Prejudice-Related Conflict and Associated Affect Beyond the College Setting

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Previous research has shown that many college students are prone to prejudice-related discrepancies (i.e., their responses to stereotyped group members are more prejudiced than their personal standards suggest is appropriate), and they feel guilty as a result. Although there are reasons to suspect that this prejudice with compunction may be observed only among college students, the present findings suggest that this is not the case. White participants varying in educational attainment (from completed grade school or less to completed graduate school), age, and income completed prejudice, discrepancy, and affect measures. Replicating findings obtained with college participants, participants reported having discrepancies, and low-prejudice participants felt guilty as a result of detecting their discrepancies. The results generalized across all levels of education, age, and income. Implications for the potential success of prejudice reduction strategies are discussed.

Keywords: conflict, discrepancies, prejudice

. . . We went to Bennington. . . . We came home, some of us, talking a new language, some cobwebs swept out, a new direction opening up ahead, we were dying to travel. Liberal, we thought we were. (Newcomb, 1943, p. 11)

The above anecdote comes from an essay that was written by a participant in Newcomb’s (1943) classic study of the women from Bennington College. According to the participant, her friends and she had become more liberal in college. Social scientists have also described college as a liberalizing experience (e.g., Newcomb, 1943; Wood & Chesser, 1994) — a time during which people are encouraged to question their old beliefs and ways and consequently adopt new attitudes about many issues. Thus, people currently attending college may be prone to conflict between their newly acquired attitudes and their persisting old habits. For example, in the realm of prejudice, many studies have shown that college students are prone to conflict between their low-prejudice
attitudes and their persisting stereotypic responses (e.g. Devine, Monteith, Zuwerink, & Elliot, 1991; Monteith & Voils, 1998). However, because college is the type of environment that encourages people to think about and change previously held attitudes, the experience of prejudice-related conflict may be restricted to people who either are in or have attended college. The goal of the present research was to investigate whether prejudice with compunction exists outside the college setting.

Prejudice-related conflict

Considerable research suggests that well-learned stereotypic associations can be automatically or implicitly activated and then applied in interpersonal evaluations, judgments, and behavior (e.g. Banaji & Greenwald, 1995; Bargh, Chen, & Burrows, 1996; Devine, 1989; Higgins & King, 1981). According to Devine’s (1989) analysis, this is because stereotypes are learned early in life and have a long history of repeated activation. For low-prejudice individuals, the activation and application of stereotypes creates a conflict between how they actually have responded and how they believe they should respond, given their personal egalitarian standards.

The notion of prejudice-related conflict between one’s personal standards and actual behavior is not new. Myrdal (1944) wrote that many White Americans experience a dilemma between their commitment to the moral and egalitarian principles of the American Creed and their own prejudices. Similarly, Allport (1954) suggested that, although many White Americans who are committed to the American Creed have renounced prejudiced beliefs, they nevertheless continue to respond to stereotyped group members in prejudiced ways. Allport further suggested that when one realizes that his or her actual responses are in conflict with how one believes he or she should respond, feelings of compunction (i.e. guilt and self-criticism) are experienced. However, neither Myrdal nor Allport tested their ideas empirically.

Devine and colleagues (Devine et al., 1991) provided the first empirical evidence that people are prone to prejudice-related discrepancies and that there are affective consequences of experiencing discrepancies. In this research, participants (college students) first reported how they should respond to Blacks, based on their personal standards, in five situations (e.g. how should you respond to a Black person sitting beside you on a bus). They then reported how they actually would respond in the same five scenarios. In addition, participants completed an affect measure on which they indicated how they felt about how well their actual responses matched their personal standards. The majority of low-prejudice participants experienced conflict between their personal egalitarian standards and their actual responses and consequently reported feelings of global discomfort and more specific feelings of guilt and self-criticism. Similarly, the majority of high-prejudice participants experienced prejudice-related discrepancies; however, these participants reported global discomfort but little negative affect directed at themselves. Thus, Devine et al. (1991) found evidence for prejudice with and without compunction. Extending these findings, recent research by Monteith and Voils (1998) provided behavioral evidence for a newer, more comprehensive discrepancy measure, indicating that people’s reports of the magnitude of their discrepancies corresponded to the extent to which they engaged in a prejudiced response.

Beyond establishing the prejudice-related conflict to which people are prone, discrepancy research has underscored the function of discrepancies by suggesting that awareness of conflict can instigate prejudice reduction efforts. Monteith (1993) argued that, following a discrepancy, several consequences occur that ultimately help one to learn to avoid prejudiced responses in the future. Specifically, one experiences feelings of guilt and becomes self-focused. In addition, one directs one’s attention to discrepancy-relevant stimuli and searches for stimuli that predict the discrepant response. Theoretically, the pairing of these discrepancy-associated consequences should serve to build cues for control (Monteith & Voils, 2001). In future situations in which a prejudiced response
is possible, already-established cues for control should serve to instigate a self-regulatory cycle so that a belief-based, nonprejudiced response can be generated (Monteith, Ashburn-Nardo, Voils, & Czopp, 2001).

Focus of current research

The research to date has contributed to theoretical developments in terms of understanding the prejudice-related conflict to which people may be prone and how the experience of conflict may encourage prejudice reduction efforts. However, because the research has relied exclusively on college participants for the purposes of testing theoretical arguments, the question remains whether the theoretical arguments and empirical findings generalize in a meaningful way beyond the college setting. Indeed, a criticism of the literature on stereotyping and prejudice is that results are too often restricted to a laboratory environment with college participants (see Judd, Park, Ryan, Brauer, & Kraus, 1995). The present study addressed this criticism, and in doing so sought to determine whether findings from discrepancy research would generalize to a sample other than current college participants. Such findings are of importance not only to increase the external validity of discrepancy research, but also to determine whether implementing prejudice reduction efforts among persons outside the college setting would be fruitful.

We obtained a sample of White participants who were not enrolled in college at the time of the study and who varied in educational attainment, from completed grade school or less to completed a professional or graduate degree. To determine whether past findings would generalize, participants completed measures of prejudice toward Blacks, discrepancy-proneness, and discrepancy-related affect. We also assessed age and income to examine the role of other demographic variables.

To replicate previous discrepancy-related findings, we needed a sample of participants whose prejudice scores range from low to high, which was expected given the heterogeneity of the present sample. Another more important requirement for replication was that the distribution of discrepancy scores obtained from a sample of people who are not currently enrolled in college reflected those typically obtained from college samples.

On one hand, we reasoned that this might occur. The same types of factors that have been cited as contributors to college students’ proneness to discrepancies may also encourage non-college participants to respond with greater prejudice than their personal standards deem appropriate. For example, stereotypic portrayals of Black persons in the media are readily available to all subsets of the population (e.g. Fiske & Taylor, 1991; Snell, 1991; Steele, 1989), likely keeping stereotypes highly accessible and fostering stereotypic responses. In addition, the energy-saving properties associated with stereotypes may encourage a continued reliance on stereotypes when responding to others (Macrae, Milne, & Bodenhausen, 1994). Moreover, it is no doubt difficult to overcome a lifetime of socialization that encourages stereotype use (Devine, 1989; Gaertner & Dovidio, 1986).

On the other hand, few people would quibble with assertions that college students are different from the general population in many ways and that college environments differ from non-college settings. As mentioned previously, college has been characterized as a unique and liberalizing experience during which time individuals are less likely to endorse racial stereotypes than are non-college individuals (Wood & Chesser, 1994). Thus, because the college environment is characterized by a concern for adopting more liberal, nonprejudiced attitudes, perhaps only students currently enrolled in college experience conflict between low-prejudice standards and persisting stereotypic responses.

A final possibility is that having attended college and been exposed to its liberalizing experiences is important for being prone to prejudice-related discrepancies, but one need not be currently enrolled in college for it to have created a propensity for discrepancy proneness. In other words, the college-educated participants in our current sample may mirror previous college samples, whereas discrepancies...
may be less likely among participants who have never attended college.

A third requirement for replication is that discrepancies carry some psychological significance among individuals not currently enrolled in college, producing negative self-directed affect (e.g., guilt) among those with low-prejudice attitudes. Even if the current sample is prone to discrepancies, there is no guarantee that these participants will experience affective consequences. We were particularly concerned that the psychological dynamics giving rise to the negative affect associated with prejudice-related discrepancies may be uniquely present in college settings. Along with the liberalizing nature of the college experience (e.g., Newcomb, 1943), college settings are often characterized by an atmosphere of political correctness (e.g., Aiex, 1996). Thus, one might argue that the college environment encourages feelings of dissatisfaction with oneself over being prejudiced, at least among students who have established well-internalized, low-prejudice standards. People who are not currently enrolled in college may or may not be bothered by inconsistencies between their personal standards and their actual behavior, as different environments may be more or less conducive to fostering such social concern. Finally, as with proneness to discrepancies, discrepancy–affect relations may be moderated by education, such that low-prejudice persons who have attended college would feel guilty as a result of detecting their discrepancies, whereas those who have never been to college would not.

In sum, the main goal of the present research was to investigate whether individuals who are not currently enrolled in college are prone to the sort of internal conflict found to be prevalent among college students. Additionally, we sought to test whether demographic variables (i.e., education, age, and income) moderate discrepancy–affect associations. If the findings were replicated, they would have implications for discrepancy-related research and theory. Specifically, the findings would indicate whether the experience of internal conflict over the coexistence of prejudiced responses and less prejudiced personal standards most aptly characterizes college students and/or people with certain demographic characteristics only. Moreover, the results of this study would have implications for prejudice reduction theory and research. That is, if people who are not currently enrolled in college are subject to the same discrepancies and related affect experienced by college students, then, theoretically, mechanisms for the self-regulation of prejudiced responses should be activated in them as well (see Monteith, 1993; Monteith & Voils, 2001).

Method

Recruitment of participants
Participants were recruited in various ways and at various locations. Because the method differed slightly from place to place, each location of data collection and the relevant procedure is described individually below.

Blue Grass Airport Eighty-eight participants were recruited at the Blue Grass Airport in Lexington, KY. One of four White female experimenters approached people waiting for incoming or departing flights individually and asked them whether they would be willing to complete a questionnaire regarding their racial attitudes. The experimenter assured potential participants that their responses to the survey would be kept completely confidential. If a person agreed to participate, the experimenter handed him/her a consent form to read and sign. Eight participants (beyond the 88 noted above) declined to complete the survey after reading the consent form. The experimenter collected the consent form and then handed participants a clipboard with a survey attached to it. She informed participants that they should return the survey to her when they were finished and then sat down in a location that was far enough away to give participants privacy. When participants returned the surveys, the experimenter gave them a debriefing form and thanked them for their participation.

Of the 88 participants recruited from this location, 10 participants’ data were dropped from analyses: 1 person did not complete the
measures, 5 evidenced response bias (e.g. all ratings of 4), 1 person was 17 years old, 2 participants were currently enrolled in college, and 1 person was Asian.

Business offices Nineteen additional participants were recruited from three business offices. These businesses were used because we had easy access to them and because they readily agreed to the distribution of the survey. The same procedure that was used at the Blue Grass Airport was used at the business offices.

Chandler Medical Center A total of 28 participants were recruited from the Intensive Care Unit waiting room at Chandler Medical Center at the University of Kentucky. The procedure was identical to that used at the airport, except that the experimenters took special precautions in selecting potential participants. That is, they only approached people who did not appear to be upset or preoccupied. Four persons (beyond the 28 noted above) declined to participate after reading the consent form. Data from 6 participants were not included in analyses: 2 evidenced a response bias, and 4 participants were enrolled in college.

Mail survey Finally, because the distribution of education level was skewed at this point, we recruited additional, less educated participants by placing an advertisement in the local newspaper or on community bulletin boards. The advertisement indicated that researchers at the University of Kentucky were seeking individuals to complete a mail survey in return for US$15 and listed a contact phone number. When someone called, one of two female experimenters gave the caller a brief overview of the procedure. Next she explained that she would need to ask them a few general questions about themselves in order to determine whether they were eligible for participation, and she proceeded to ask a series of questions. Several filler questions (e.g. ‘Are you a registered voter?’ and ‘Were you born in Kentucky?’) were asked, along with the questions of interest. Specifically, we asked, ‘What is your race?’ and ‘Have you completed a four-year degree?’ For the last 16 participants, we replaced the latter question with, ‘Have you taken any college courses?’ These questions were necessary to recruit White participants who were not college-educated. If callers were non-White and/or had attended college, the experimenter indicated that they did not qualify for participation in the study and thanked them for their interest. If callers did qualify for participation, the experimenter explained the procedure, with special efforts to emphasize how the confidentiality of responses would be assured.

A packet that included an instruction sheet, a survey, a W-9 (a tax form that must be completed by all individuals who are paid for their participation), and two stamped, addressed envelopes was mailed to each potential participant. The instructions informed participants that they should mail the W-9 and the survey separately (i.e. in the two envelopes provided, which were addressed to two different researchers at the University of Kentucky) so that all surveys and W-9s would be kept separate and survey responses would not be linked to particular people.

A total of 71 callers qualified for participation and received survey packets. Of those, 61 returned the surveys, yielding a return rate of 86 percent. Data from 7 participants were excluded: 1 person stated on the survey that she was currently enrolled in college, 1 person was in high school (although 18 years of age), and 5 people did not follow instructions.

Combining all four samples, data from a total of 173 White participants were used in all analyses. Of those, 104 were female, and 69 were male.

Measures Participants first completed a demographic sheet that asked their sex, age, race, education level, annual income (if married, combined with spouse’s), and place of residence. To indicate their education level, participants chose one of the following categories: (1) completed grade school or less (N = 4), (2) completed high school (N = 45), (3) currently enrolled in college (N = 7; relevant data were excluded given the present research goals), (4) some
college but not currently enrolled (N = 54), (5) completed college (N = 35), (6) some graduate or professional school after college (N = 11), and (7) completed graduate or professional school (N = 24). As reflected in this distribution, our sample included people who had not attended college so that we could determine whether discrepancies and discrepancy–affect relations are present among individuals who have not been exposed to the unique, liberalizing college environment. Age and income were assessed by having participants write their age and income on blank lines. The descriptive statistics for education, age, and income are listed in Table 1. Most individuals in our sample (N = 163) listed Kentucky or another Southern state as their place of residence.

Following the demographic sheet was either the prejudice or discrepancy measure (to be described below). The order of these two questionnaires was counterbalanced across participants. Analyses indicated that order had no effect on prejudice or discrepancy scores. The prejudice measure was the 20-item Attitudes Toward Blacks scale (ATB; Brigham, 1993). For example, one item reads, ‘I would rather not have Blacks live in the same apartment building I live in’. Ratings were recorded on 7-point Likert-type scales ranging from disagree strongly to agree strongly.

The measure of discrepancy-proneness was the 32-item Should–Would Discrepancy Questionnaire (Monteith & Voils, 1998). The first 16 items on the scale ask how people believe they should respond to Blacks in various situations. For example, one item reads, ‘I believe that I should not think of Blacks in stereotypical ways.’ Next, participants were asked to consider how they would respond to Blacks in 16 parallel sets of situations. For example, a corresponding would item reads, ‘I sometimes have stereotypical racial thoughts.’ Participants were encouraged to report how they believe they would respond in such situations candidly, regardless of whether their woulds matched their shoulds. The shoulds and the woulds were presented in different random orders to decrease the likelihood of direct comparison between corresponding items. Responses to the shoulds and the woulds were made on 7-point scales ranging from 1 (disagree strongly) to 7 (agree strongly).

Finally, a 32-item adjective checklist that served as an affect measure was presented immediately after the discrepancy scale. (Affect items are provided in the Results.) The directions instructed participants to think about the degree of correspondence between how they stated they should respond to Blacks and how they actually would respond and to indicate how they felt as a result of the correspondence or lack thereof. Ratings were made on 7-point Likert-type scales (does not apply at all to applies very much).

Results

Sex was dummy coded as 0 = females and 1 = males. Education was treated as a continuous variable ranging from 1–7, with higher numbers reflecting higher levels of education. Prejudice scores were computed by reverse-scoring the appropriate items on the ATB and then summing across all items (α = .84). Discrepancy scores were computed by first reverse-scoring all appropriate items and then subtracting each should item from the corresponding would item. Finally, we summed these difference scores to create a discrepancy index (α = .55).2

Table 1. Descriptive statistics for demographic variables

<table>
<thead>
<tr>
<th>Item</th>
<th>Range</th>
<th>M</th>
<th>SD</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>22–78</td>
<td>44.77</td>
<td>14.78</td>
<td>43.0</td>
</tr>
<tr>
<td>Income</td>
<td>$0–$130,000</td>
<td>$44,428</td>
<td>$26,275</td>
<td>40.0</td>
</tr>
<tr>
<td>Education</td>
<td>1–7</td>
<td>4.16</td>
<td>1.72</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Note: Education ranged from 1 (not completed high school) to 7 (completed graduate or professional school). Income is reported with all outliers excluded. See Footnote 1.
One requirement for replicating previous findings using college students is that we obtain a wide range of prejudice scores, with some participants having relatively high-prejudice attitudes and others having relatively low-prejudice attitudes. The possible range of scores on the ATB is 20 to 140. Our obtained range was 20 to 123 (M = 59.16, SD = 18.17), which is similar to the ranges obtained in past college samples (see Monteith & Voils, 1998). Thus, participants in our sample ranged from low to high in prejudice.

Proneness to discrepancies

A central issue to the external validity of the discrepancy measure is whether people outside the college environment experience prejudice-related discrepancies to the degree that college students do. Table 2 shows the ranges, means, standard deviations, and percentage of positive discrepancy scores (i.e., those for which participants’ woulds were either equal to or greater than their shoulds) for the current sample (broken down by education level) and past samples from Monteith and Voils’ (1998) research, which used the same 32-item Should–Would Discrepancy Questionnaire in four separate college samples. Overall, the present sample closely resembled the college samples. First, the overall range of positive discrepancy scores in the current sample was similar to those of college samples. Also, the range of discrepancies within each education level was similar to the ranges obtained using college students. People who have not attended college (levels 1 and 2), have had some college (levels 4 and 5), and who have pursued graduate degrees (levels 6 and 7) all appear to be prone to prejudice-related discrepancies. Second, the mean discrepancy score from the current sample did not differ from either the University of Kentucky samples or the Duke University sample (t < .79, p > .43). As in the college samples, discrepancy scores in the present sample were significantly larger than in the Wisconsin sample (t(311) = 3.38, p < .01). In sum, our sample of non-college participants appeared to be prone to prejudice-related inconsistencies to the same degree as college students, and in comparison to the Wisconsin sample, even more prone.

Table 3 summarizes the correlations between prejudice, discrepancies, the demographic variables, and all affect indices. All significant relations are consistent with those obtained in past research. For example, in discrepancy research, prejudice is usually correlated with discrepancies (e.g., Devine et al., 1991). Prejudice

Table 2. Descriptive statistics for discrepancy scores (totalled) in present and past samples

<table>
<thead>
<tr>
<th>Education Level</th>
<th>N</th>
<th>Range of scores</th>
<th>% Positive scores</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present sample</td>
<td>173</td>
<td>9-51</td>
<td>94.2</td>
<td>17.94</td>
<td>10.81</td>
</tr>
<tr>
<td>1 (grade school or less)</td>
<td>4</td>
<td>2-25</td>
<td>100.0</td>
<td>14.25</td>
<td>9.74</td>
</tr>
<tr>
<td>2 (high school graduate)</td>
<td>45</td>
<td>9-51</td>
<td>95.4</td>
<td>16.82</td>
<td>11.76</td>
</tr>
<tr>
<td>4 (some college)</td>
<td>54</td>
<td>-2-37</td>
<td>96.2</td>
<td>19.50</td>
<td>9.47</td>
</tr>
<tr>
<td>5 (college graduate)</td>
<td>35</td>
<td>-3-38</td>
<td>97.1</td>
<td>16.65</td>
<td>10.40</td>
</tr>
<tr>
<td>6 (some graduate school)</td>
<td>11</td>
<td>-1-42</td>
<td>90.9</td>
<td>18.64</td>
<td>11.73</td>
</tr>
<tr>
<td>7 (completed graduate school)</td>
<td>24</td>
<td>-8-50</td>
<td>87.5</td>
<td>18.86</td>
<td>12.67</td>
</tr>
<tr>
<td>Monteith &amp; Voils (1998)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Kentucky</td>
<td>135</td>
<td>-12-50</td>
<td>91.0</td>
<td>15.83</td>
<td>11.83</td>
</tr>
<tr>
<td>University of Kentucky</td>
<td>403</td>
<td>-18-54</td>
<td>98.2</td>
<td>17.25</td>
<td>11.34</td>
</tr>
<tr>
<td>Duke University</td>
<td>71</td>
<td>-6-48</td>
<td>96.1</td>
<td>18.67</td>
<td>10.61</td>
</tr>
<tr>
<td>University of Wisconsin</td>
<td>161</td>
<td>-18-49</td>
<td>92.3</td>
<td>12.24</td>
<td>9.72</td>
</tr>
</tbody>
</table>

Note: Negative discrepancy scores occur when participants report personal standards (’shoulds’) that are more prejudiced than their actual responses (’woulds’). These may reflect truly negative discrepancies or response errors. Theoretical interest centers on positive discrepancies. As reflected in the % Positive scores column, negative discrepancies occur infrequently. M s and SD s do not include negative discrepancy scores.
is also typically negatively correlated with education (e.g. Glover, 1994; Hesselbart, 1976) and positively correlated with age (Schuman, Steeh, & Bobo, 1985; Schuman, Steeh, Bobo, & Krysan, 1997). Also replicating past research, males tended to report higher income than females (Saltzman, 1991). Income was also significantly positively related to education, as is the case in the general population (US Census Bureau, 1999).

Most importantly, discrepancy proneness was not significantly related to any of the demographic variables, suggesting that the experience of discrepancies was not systematically related to sex, age, income, or education. With regard to education, this finding is especially illuminating. One might argue that college-educated persons would be just as likely as currently-enrolled persons to experience discrepancies because, although not currently enrolled in college, they were exposed to the same type of liberalizing environment at some point in their lives. In contrast, those who have not attended college would not be prone to discrepancies because they have not been exposed to a liberalizing environment. The present findings suggest that this is not the case.

Discrepancy-associated affect

A second issue related to the external validity of prejudice-related discrepancies is whether people who are not in college experience negative self-directed affect as a result of detecting their discrepancies. Perhaps responding with more prejudice than one’s standards suggest is appropriate is not associated with negative affect among persons who are not currently a part of the liberalizing environment provided by most colleges and universities.

To examine this issue, we first submitted all affect items to a principal components analysis, which yielded a solution that was consistent with past studies (e.g. Devine et al., 1991; Monteith & Voils, 1998). Specifically, five factors were obtained, and each affect index was formed by taking the average rating for the items loading on the same factor. The indexes included 

- Negself (i.e. disappointed with myself, guilty, angry at myself, annoyed with myself, disgusted with myself, regretful, shameful, self-critical; $\alpha = .86$),
- Discomfort (i.e. fearful, uneasy, embarrassed, bothered, anxious, tense, threatened, uncomfortable, frustrated; $\alpha = .86$),
- Down (i.e. depressed, low, sad, helpless; $\alpha = .74$),
- Positive (i.e. content, happy, friendly, energetic, optimistic, good, consistent; $\alpha = .79$), and
- Negother (i.e. irritated at others, disgusted with others, angry at others; $\alpha = .83$).

A first set of analyses was conducted to test whether the affect findings from college samples would replicate. That is, low-prejudice, discrepancy-prone participants should feel relatively guilty, whereas high-prejudice participants should feel less guilty. Using hierarchical...
regression, each affect index was predicted using sex, prejudice, discrepancies, and all possible interactions. All continuous variables were centered (Aiken & West, 1991). Main effects were entered at the first step, followed by two-way interactions at the second step, and the three-way interaction at the third step. One participant whose prejudice score exceeded the upper fence was identified as an outlier, and all affect analyses were conducted without that participant’s data. Also, 7 participants had negative discrepancy scores, so their data were excluded from analyses. Removing these outliers resulted in an educational distribution of (1) N = 4 completed grade school or less, (2) N = 43 completed high school, (4) N = 1 some college but not currently enrolled, (5) N = 34 completed college, (6) N = 11 some graduate or professional school, (7) N = 21 completed graduate or professional school.

Negself  Consistent with past research, there was a significant main effect of discrepancies on Negself (F(1,153) = 7.18, p < .01, β = .23), indicating that people with larger discrepancies felt more guilty than those with smaller discrepancies. This main effect was qualified by the predicted Prejudice × Discrepancy interaction (F(1,150) = 4.41, p < .04). Replicating past research, low-prejudice participants with large discrepancies experienced more Negself (y = 2.84) than those with smaller discrepancies (y = 1.63) (t(153) = 3.63, p < .01). In contrast, high-prejudice participants with larger discrepancies felt equal levels of Negself (y = 2.26) as those with smaller discrepancies (y = 2.02) (t(153) = .76, p < .46). This two-way interaction was qualified by a three-way interaction between sex, prejudice, and discrepancies (F(1,149) = 6.36, p < .02). Among males, the usual Prejudice × Discrepancy interaction emerged, with discrepancies leading to Negself only among low-prejudice participants. Although low-prejudice females with relatively large discrepancies experienced the most Negself of all, high-prejudice females with large discrepancies experienced significantly more guilt than their counterparts with small discrepancies (t(89) = 2.57, p < .02).

Discomfort  In predicting general discomfort, a main effect of discrepancies emerged (F(1,151) = 15.39, p < .01, β = .31), indicating that those with relatively large discrepancies experienced more discomfort than those with smaller discrepancies. This was not qualified by an interaction with prejudice level (p < .13), thereby replicating previous findings. Thus, participants of all levels of prejudice reacted to their discrepancies with feelings of discomfort.

Down  The analysis of the Down index revealed a significant Prejudice × Discrepancy interaction (F(1,149) = 6.62, p < .02). Replicating the pattern obtained with Negself feelings, low-prejudice participants with larger discrepancies felt more Down (y = 2.36) than those with smaller discrepancies (y = 1.62) (t(152) = 2.83, p < .01). In contrast, the effect of discrepancies was nonsignificant among high-prejudice participants (t(152) = .84, p < .41).

Because the three above affect indexes were highly correlated with one another, it was important to examine the effects of prejudice and discrepancies on Negself independent of feelings of discomfort and down (see also Devine et al., 1991). To do so, we predicted Negself from sex, prejudice, and discrepancies and their interactions while partialing out Down and Discomfort. The analysis revealed that the Sex × Prejudice × Discrepancy interaction remained significant (F(1,145) = 9.19, p < .01). Thus, experiencing negative self-directed affect in relation to prejudice-related discrepancies appears to be independent of feeling discomfort and down.

Positive and Negother  There was a main effect of discrepancies in predicting positive feelings (F(1,149) = 6.34, p < .02, β = −.21), such that greater consistency between one’s standards and responses was associated with more positive feelings. No significant effects were associated with Negother.

Demographic predictors  Next it was important to determine whether discrepancy-affect relations depend on various demographic characteristics. We first examined
the role of education, followed by the other demographic variables.

Education We first explored the role of education in discrepancy–affect relations by conducting moderation analyses (see Baron & Kenny, 1986). Specifically, we conducted hierarchical regression analyses in which sex, prejudice, discrepancies, level of education, and all possible interactions were used to predict the various affect indexes. Given the strong likelihood of obtaining significant effects due to chance when testing so many effects, we adopted a p-value criterion of .003 (with \(\alpha = .05\) and 15 possible effects per dependent variable, \(\alpha/15 = .003\)). No significant effects involving education emerged. Even when we adopted a less stringent significance criterion (p < .01), there were no significant moderating effects, suggesting that the experience of negative affect in relation to one’s discrepancies does not depend on one’s level of education.

Next, we examined discrepancy–affect relations only among participants who had never attended college (N = 47). Specifically, we used prejudice, discrepancies, and their interaction to predict the various affect indexes while controlling for participant sex.3 In predicting Negself, the Prejudice \(\times\) Discrepancy interaction was significant (F(1, 41) = 5.05, p = .03). Figure 1 shows the predicted values. As expected, low-prejudice participants with relatively large discrepancies felt greater Negself than those with relatively small discrepancies (t(42) = 2.46, p < .02, \(\beta = .48\)). In contrast, the effect of discrepancies was not significant among high-prejudice participants (t(42) = 1.11, p < .28). In predicting Discomfort, there was a main effect of discrepancies (F(1, 41) = 5.43, p < .03, \(\beta = .35\)), such that participants with relatively large discrepancies experienced more feelings of discomfort than those with relatively small discrepancies. The main effect of discrepancies was also significant in predicting Positive (F(1, 41) = 9.71, p < .01), with small discrepancy participants feeling more positive than large discrepancy participants. No significant effects were associated with Down or Negother.

![Figure 1](image-url)

Figure 1. Negself as a function of prejudice and discrepancies among participants who have never attended college.
Next we conducted additional analyses to determine if low-prejudice, discrepancy-prone participants experienced Negself independent of Discomfort and Down. Specifically, we used prejudice, discrepancies, and their interaction to predict Negself while partialing out Discomfort, Down, and participant sex. The Prejudice × Discrepancy interaction was no longer significant ($F < 1$). Thus, among less-educated people, Negself was not experienced independently of Discomfort and Down.

In conclusion, we replicated past research using college samples and found evidence of compunction in relation to discrepant responses among low-prejudice persons who have never been exposed to the liberalizing college environment. They were just as likely as their more educated counterparts to detect prejudice-related discrepancies and feel guilty in relation to their discrepancies. Next we examined the role of the other demographic variables.

**Age and income.** We examined the role of age and income by testing for possible moderating effects. Specifically, separate regression analyses were performed for each affect index, each time with a different demographic predictor included in the analysis, along with prejudice, discrepancies, sex, and all possible interactions. We used the same significance criterion as we did for moderation analyses involving education. The results did not reveal any moderating effects associated with the demographic variables, either using the $p < .003$ or the $p < .01$ criterion. Thus, the previously reported discrepancy–affect relations were not qualified by interactions with income or age.

Finally, we performed all principal analyses reported in the previous section with education, income, and age partialled out simultaneously (excluding all income outliers). The effect of discrepancies on Negself remained significant ($F(1, 120) = 8.51, p < .01, \beta = .28$), as did the Prejudice × Discrepancy interaction ($F(1, 117) = 4.00, p < .05$), and the three-way interaction between sex, prejudice, and discrepancies ($F(1, 116) = 4.78, p < .04$) (with the same patterns of predicted values as reported above). In predicting Discomfort, the effect of discrepancies remained significant ($F(1, 118) = 13.65, p < .01, \beta = .33$), and was not qualified by a significant Prejudice × Discrepancy interaction ($p < .13$). In predicting Down, the Prejudice × Discrepancy interaction was no longer significant ($F < 1, p = .30$). The effect of discrepancies remained significant in predicting positive feelings ($F(1, 117) = 4.28, p < .05, \beta = -.20$). Finally, as before, no significant effects involving Negother emerged. In sum, previously reported discrepancy–affect relations were nearly identical when the effects of education, income, and age were controlled.

In conclusion, we replicated previous discrepancy–affect findings that were obtained in college samples using a large sample of people who are not currently enrolled in college. Because these individuals varied in education, age, and income, we were able to examine the generality of the findings across different types of individuals. Our results indicate that the experience of negative self-directed affect in relation to prejudice-related discrepancies is not a phenomenon that is unique to 18–22-year-old college students. Furthermore, it is not being exposed to liberal ideology in college that leads to the detection of discrepancies and resulting dissatisfaction with oneself about such responses; both people who have and have not attended college were prone to discrepancies and experienced negative self-directed affect as a result.

**Discussion**

Due to the ready availability of college freshmen and sophomores for use as research participants, about 75 per cent of all published research has relied on this limited participant pool (Sears, 1986). Although sample representativeness is not essential in some basic, largely theory-driven research, it becomes critically important when conclusions about the nature of social phenomena such as prejudice are of interest (Sears, 1986). The present research investigated whether the phenomenon of prejudice with and without compunction extends beyond college settings. For various reasons, people who are not currently in college may not experience
discrepancies and their associated affect. For example, some have argued that the college environment is one that fosters liberal attitudes and social concern (e.g., Aiex, 1996; Newcomb, 1943), introducing the possibility that only participants currently enrolled in college or participants who have gone to college would be prone to discrepancies.

We found that discrepancy findings generalized to persons outside the college setting. Specifically, we found that discrepancy levels varied greatly among these individuals. We also found that low-prejudice participants experienced the greatest levels of negative self-directed affect (e.g., guilt) in relation to their discrepancies. Furthermore, the experience of discrepancies and associated affect was unrelated to level of education. Even people who had never been to college reported that they sometimes respond with more prejudice than they believe is appropriate, and they felt guilty as a result. In addition, age and income did not appear to drive discrepancy–affect relations. We now turn to a discussion of how the present findings are relevant to the likely effectiveness of various prejudice reduction strategies.

Implications for prejudice reduction strategies
If not explicitly stated, an implied goal of the hundreds of publications on prejudice and stereotyping during the past century has been to understand how prejudice might be alleviated. Although we have gleaned an impressive amount of knowledge from college samples, presumably prejudice reduction methods are meant to apply to a broader population. The present findings suggest that prejudice reduction efforts that rely upon the experience of negative affect may be extended beyond the college setting and applied to the development of prejudice reduction strategies in work settings. Given the recent concern over prejudice in American companies (e.g., Coca Cola, Denny’s, and Texaco), successful prejudice reduction strategies are certainly in demand, and some have already been adopted.

Many companies employ short-term prejudice reduction tactics as tools to reduce discrimination in the workplace. Denny’s restaurants, for example, now has a diversity training program that all employees, including management, must attend. Employees are now admonished that, if they discriminate, their employment will be terminated (Rice, 1996). Although this strategy may achieve the immediate goal of eliminating discrimination in the workplace, it could have negative consequences on people who are not internally motivated to avoid prejudice. For instance, backlash could occur whenever pressure to comply is released (Plant & Devine, 2001), or terminated individuals could find a new workplace and return to their old habits.

Other prejudice reduction strategies could backfire altogether. For example, confronting individuals with their prejudice may not yield the desire to bring about change, but may foster resentment. Such resentment may in fact kindle existing prejudices, leading to backlash (Plant & Devine, 2001). An alternative temporary prejudice reduction strategy involves instructing employees to suppress prejudiced thoughts and behaviors. However, suppression efforts can backfire, making prejudiced responses especially likely to occur (Macrae, Bodenhausen, Milne, & Jetten, 1994). Finally, empathy induction techniques have been used to improve intergroup relations with some success (see Stephan & Finlay, 1999; for a review). However, such strategies can sometimes have unintended consequences, such as exonerating persons from any responsibility for the discrimination that minority groups experience (Boiler, 1997)...

We believe that other strategies, particularly those that involve self-reflection or internal confrontation, may yield more long-term success. For example, as described in the introduction, the experience of discrepancy-related guilt should serve to establish cues for control that, when present in future situations in which prejudiced responses are possible, should instigate a variety of self-regulatory mechanisms that allow one to provide nonprejudiced responses.
Rokeach (1973) also proposed a model in which the experience of negative affect eventually may lead to less prejudiced responses. According to his self-confrontational model, self-dissatisfaction results from individuals being confronted with the inconsistencies between their higher level values, such as fairness, tolerance, and egalitarianism, and their more specific level behaviors, such as prejudiced attitudes and/or responses. The confrontation and resulting self-dissatisfaction should lead an individual to change his or her specific level response so that it becomes consistent with his or her higher order value.

While these methods hold promise for change, future research is needed to investigate under what circumstances change can be implemented and for which people. Indeed, some prejudice reduction efforts may be successful for reducing prejudice among certain individuals but not others. Whether or not a strategy will be successful likely depends on the type of negative affect that results. For example, Monteith's (1993; Monteith et al., 2001) program of research has shown that negative self-directed affect (i.e. feeling guilty) results in self-regulatory activity, allowing one to replace a potentially prejudiced response with a more acceptable nonprejudiced response. However, her model was designed to understand prejudice reduction among people who already hold egalitarian, low-prejudice attitudes. It may not be what is needed to produce change among high-prejudice individuals. As such, detecting discrepant responses (Devine et al., 1991; Monteith, Devine, & Zuwerink, 1993). This may be dangerous, as backlash can result from negative other-directed affect (Plant & Devine, 2001) and threats to self-esteem (Fein & Spencer, 1997), leading to more rather than less prejudiced responses.

A challenge for future research is to determine how prejudice may be reduced among high-prejudice individuals. A method such as Rokeach's self-confrontation method may prove successful because it does not result in the type of negative affect that leads to backlash. However, these individuals will first have to define egalitarianism as inequality of opportunity rather than individualism (see Monteith & Walters, 1998) before they can realize inconsistencies between their higher-level values and specific behaviors. Determining precisely how this may be accomplished is yet another challenge for social scientists.

Conclusion

Without doubt, college is a time during which many individuals question their existing beliefs and habits and potentially adopt more liberal attitudes, and college campuses often provide an atmosphere that encourages such questioning and change. Nonetheless, the current research suggests that it is not only those individuals who are enmeshed in the college experience who are prone to prejudice-related conflict and compunction. Because such feelings can provide the impetus for change, future research is needed to determine whether discrepancy experiences lead to prejudice reduction among non-college individuals.

Notes

1. Of the 173 participants, 28 did not report their income. Twenty-two of the missing data points were from females. The distribution of income was positively skewed. Data from 6 participants who reported an annual income of more than US$130,000 were treated as outliers because the values exceeded the upper fence. This criterion was used because means and standard deviations are significantly inflated by outliers, whereas the interquartile range (which is used to calculate the upper fence) is not influenced by a small number of extreme scores. All analyses involving income were computed excluding the outliers. With the outliers included, M = $55,107, SD = $64,739.

2. Because difference scores tend to be unreliable, an alternative analytic approach that does not involve difference scores can be used. That is, one can predict participants' would scores from their should scores, standardize and save the residual, and then use that variable in all analyses in place of discrepancies. We performed all analyses using
this strategy and obtained the same findings; neither the direction nor the significance of any of the findings differed.

3. There was too little power to test for the three-way interaction. When two-way interactions involving participant sex were included in the regression model, the Prejudice × Discrepancy interaction was only marginally significant (p < .07), and the interactions involving sex were nonsignificant. We trimmed the regression model so that we would have optimal power to detect the interaction of theoretical interest (see Aiken & West, 1991, chapter 6).

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References


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