

# The Effects of In-Group versus Out-Group Social Comparison on Self-Esteem in the Context of a Negative Stereotype

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Upward comparison with members of an in-group can be both enhancing and threatening to self-esteem (Brewer & Weber, 1994). According to Tesser's (1986, 1988) self-evaluation maintenance model (SEM), the superior performance of in-group members should be threatening when comparisons are made on ability domains that are relevant to self-esteem. We argue that such comparisons will instead be enhancing if the superior other's performance challenges negative ability stereotypes about the group. In a laboratory experimental study, 60 African American female participants were given feedback on a bogus IQ test under conditions designed to increase the salience of negative stereotypes. Participants were then exposed to either upward or downward social comparison infor-

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mation about the performance of a White or African American female confederate. A contrast effect was observed when the confederate was White such that participants reported higher state self-esteem in the downward social comparison condition than in the upward social comparison condition. When the confederate was African American, an assimilation effect was observed such that participants reported higher state self-esteem in the upward social comparison condition than in the downward social comparison condition. These results do not appear consistent with SEM and indicate that people are at times encouraged when close others outperform them on important tasks. © 2000 Academic Press

Social comparison with members of meaningful in-groups often have greater effects on self-evaluations than social comparison with members of out-groups (Major, Sciacchitano, & Crocker, 1993; Miller, Turnbull, & McFarland, 1988; cf. Brewer & Weber, 1994). The reasons for this are numerous, including the fact that members of the in-group are more likely to be viewed as similar and thus as more informative standards of comparison (Goethals & Darley, 1977), the fact that we often define our abilities in relation to in-group standards (Miller & Prentice, 1997), and the fact that we feel an emotional bond with members of the in-group (Brown, Novick, Lord, & Richards, 1992; Miller et al., 1988). The various factors that often lead in-group comparison to be more meaningful are captured by Tesser's (1988; Campbell & Tesser, 1985) notion of "psychological closeness." This occurs when the self and other are viewed as comprising part of a unit relationship (Heider, 1958), causing them to be linked to one another during self-evaluation.<sup>1</sup>

### *Self-Evaluation Maintenance*

In his self-evaluation maintenance (SEM) model, Tesser (1986; 1988) has argued that psychological closeness can lead to two different evaluation processes (see also Blanton, in press). These are termed the *comparison process and the reflection process*. In the comparison process, close others are used as standards of comparison for evaluating the self. This leads to a contrast effect on self-evaluations such that individuals will feel enhanced by downward comparison and diminished by upward comparison. Thus, when the comparison process is activated, individuals will seek close relations with downward comparison targets as a way of creating a positive contrast between self and other. In the reflection process, close others are not viewed as standards against which to

<sup>1</sup> The use of the term "closeness" in Tesser's (1988) model often causes the perception that this pertains to feelings of friendship or to affective bonds between individuals. This perception is in part because Tesser and colleagues have at times operationalized closeness variable in terms of friendship (e.g., Tesser, Millar, & Moore, 1988; cf. Tesser & Campbell, 1980). However, Tesser (1986) has clearly argued that closeness is a "cognitive-perceptual variable" that has effects that are not mediated by affect. As he states, "Although the term 'closeness' often connotes a positive affective bond, my own experience with the model (e.g., Pleban & Tesser, 1981) suggests that it is best to exclude the affective component from the definition." (p. 438). Given this statement, it seems appropriate to consider in-group similarity as one factor that can lead to psychological closeness and to the perception that the self and the other share a meaningful cognitive category (see also, Tajfel & Turner, 1979; Turner, 1987).

evaluate the self but are instead viewed as representing the self through their actions. This leads to an *assimilation effect* on self-evaluations such that individuals will feel enhanced by upward comparison and diminished by downward comparison. Thus, when the reflection process is activated, individuals will seek close relations with upward targets of comparison as a way of creating a positive association between self and other.

To reconcile when closeness will lead to comparison and contrast versus reflection and assimilation, Tesser (1986; 1988) introduced the *relevance* variable. He predicted that the comparison process is engaged when people self-evaluate in terms of abilities that are esteem-relevant. This prediction is based on the notion that people want to believe that they are competent on esteem-relevant dimensions. Because competence is often defined in terms of relative standing, individuals should then seek evidence that their ability is superior to that of close others. When people self-evaluate in terms of abilities that are not esteem-relevant, the reflection process is predicted. Freed from concerns about their own ability, people instead focus on the social desirability of the associations they have with close others. Because one's own image can be enhanced by socially desirable associations, individuals should seek closeness with individuals who have abilities superior to their own.

### *Comparison and Group Threat*

The basic predictions in the SEM model, including the proposed moderating role of psychological closeness, have received a great deal of empirical support (see also Pelham & Wachsmuth, 1995). However, there are common situations involving in-group comparisons in which the model makes predictions that defy intuition. To illustrate, consider the example of an African American woman who is receiving a "B" in an advanced course at a historically white college. Suppose this woman identifies strongly as an African American and considers it important to be viewed by others as intelligent—a concern she has in part because she is aware of prevailing negative stereotypes about the intellectual ability of African Americans. Given this context, what effect would it have on this woman if one other African American were enrolled in the course and doing much better than her? This other woman is receiving an "A" and is known to be outperforming all of the other students in the class, including all of the White students. According to SEM, the B-student should be threatened by the superior performance of the other in-group member. This target of comparison is psychologically close, in that she is a member of a meaningful in-group, and the ability domain is esteem-relevant, in that it is important for the B-student to be viewed as intelligent. Thus, SEM predicts that the B-student will contrast her own performance with that of the superior A-student and that the result will threaten her self-esteem. Moreover, the threat to self-esteem should be greater than what would have been experienced had the upward target of comparison been White.

Although this outcome is possible, an alternative prediction is also viable. In this example, the A-student's performance was so good that it clearly and

unambiguously discredited the negative stereotype of African Americans. The result of this comparison could then be increased self-esteem for the B-student, through her identification as an African American. Of course, if the one other African American in the course were not doing well; if she was instead receiving an "F" and was the only student known to be failing out of the course, the B-student may not feel as proud of her association with the other African American. An F-student would threaten the status of the group, which could cause the B-student to experience a drop in self-esteem.

### *Social Comparison and Negative Stereotypes*

We believe SEM makes the wrong predictions in the above example because it does not address evaluative concerns related to the maintenance of an important but threatened group identity. We would argue that, when a target of comparison is close because of a shared group identity, and the target's performance challenges negative group stereotypes, assimilation effects can occur. In such instances, the boost from having the negative stereotype challenged can override any damage done by being outperformed by the close other. The close other raises the standing of the shared group, which raises the esteem of the individual who identifies with that group.

Support for these predictions can be found in a set of studies by Brewer and Weber (1994). They demonstrated an in-group assimilation effect in conditions under which self-evaluation was linked to evaluations of the group. Thus, upward comparison with an in-group member was associated with positive self-evaluations and downward comparison with an in-group member was associated with negative self-evaluations (see also Brown, Novick, Lord, & Richards, 1992). Although these results provide strong basis for our own predictions (see also Buunk & Ybema, 1997; Collins, 1996), the "group" in these studies was based on a shared minimal group assignment. Thus, it is not clear that assimilation effects will occur when psychological closeness is based on a meaningful group or a group for which there are prevailing negative stereotypes. Evidence that Brewer and Weber's results may generalize under these circumstances can be found in a study of schoolchildren in New Zealand. Mackie (1984) found that ethnic minority students sought upward in-group comparisons if they were making comparisons on an evaluative dimension in which negative group stereotypes were made salient. This finding indicates that individuals want in-group members to disconfirm negative stereotypes and it suggests that assimilation effects might occur for self-evaluation. However, to date, no published research has established assimilation using meaningful and threatened groups. The current study addressed this by looking at the effects of in-group versus out-group comparisons in a sample of African American college students.

### STUDY OVERVIEW

The current study investigated the effects of social comparison on the state self-esteem of a sample of African American women. Participants were exposed

to upward versus downward social comparison about the performance of a White or African American confederate on a bogus IQ test. This feedback was given in a context designed to increase the salience of negative stereotypes about the intellectual functioning of African Americans. We predicted a contrast effect when the confederate was White such that upward comparison would result in lower self-evaluations than downward social comparison (e.g., Morse & Gergen, 1970). We predicted an assimilation effect when the confederate was African American such that upward comparison would result in higher self-evaluations than downward social comparison. These predictions do not appear consistent with SEM because an increase in psychological closeness is expected to increase assimilation on an esteem-relevant task.<sup>2</sup>

### *Method*

*Participants and design.* Sixty female African American students from introductory psychology classes participated for course credit. The mean age of the sample was 18 years (range, 17–22). Participants were randomly assigned to one of the four experimental conditions based on a 2 (comparison direction: up or down)  $\times$  2 (comparison other: African American or White) between-subject factorial design.

*Procedure.* Each participant was met by a White male experimenter and either a White or African American female confederate who played the part of a second participant in the study. After the participant signed the consent form, the experimenter presented a bogus rationale for the study designed to increase the concern for doing well as an African American (adapted from Steele & Aronson, 1995). Specifically, he stated that the purpose of the study was to “standardize” a new “IQ” measure of “natural math ability” that had thus far only been tested on White college samples. Given this, he said, it was important for everyone in the study to give their best performance so that the standardization would be accurate. To solidify this manipulation further, participants were exposed to a race prime prior to the math test in the form of a question asking them to state their race/ethnicity on a form (Steele & Aronson, 1995; Study 4).

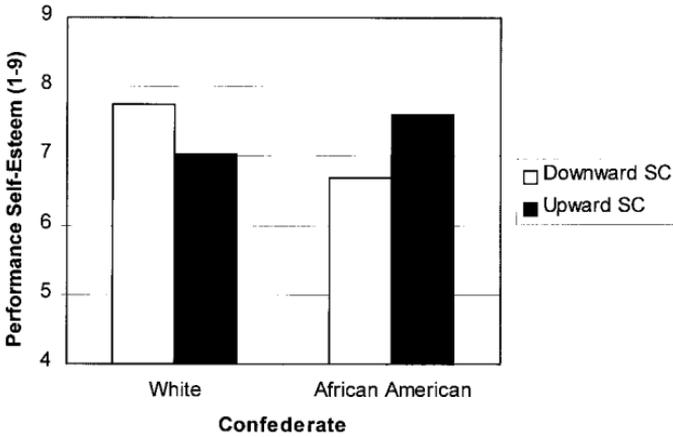
After this introduction, the participant took a bogus IQ test on a computer, in a cubicle in the same room as the confederate. This test asked a number of straightforward math and spatial reasoning questions (e.g., “What is the remainder after 72 is divided by 3?” and “When a cube is sitting on a table, what is the maximum number of sides one can view at once?”). To make this test seem realistic, the participant was told that the computer measured both speed and accuracy and that natural math ability was computed from a combination of these scores. After the task was completed, the computer printed out a bogus score for participants with both a speed score (27) and an accuracy score (14) and gave the

<sup>2</sup> The current study did not have a no-comparison control group and so the current procedure cannot reveal if assimilation and contrast effects will occur on self-evaluations, relative to the ratings that might occur in the absence of any social comparison information (cf. Lockwood & Kunda, 1997).

participant instructions to take these scores with them to an adjoining room. The participant was met in this room by the experimenter, who asked her to take a seat three rows back from the front of the room. A few seconds later, the confederate entered the room and was seated one row in front of the participant.

At this point, the experimenter went to the front of the room and gave a brief presentation on the importance of natural math ability and how this type of IQ was found to predict success in college, graduate school, and one's career. He then handed out a grid that would allow participants to estimate their "percentile rank" based on the average speed and accuracy of a preliminary standardization. He pointed out, however, that this standardization was based on the performance of a sample of White college students and so it was not yet "standardized." At this point, he finished his lecture and stated that he would go around the room to determine if each student had used the grid correctly. He first went to the participant and silently pointed to the percentile rank corresponding to her bogus score. The grid was manufactured in such a way that these scores translated into a ranking in the 67th percentile, which the experimenter described as "a little above average." In this exchange, the experimenter talked in a hushed tone so that the participant had the perception of privacy. After answering any questions, he then went to the confederate, who had already estimated her percentile scores using the grid. In the downward social comparison condition, the confederate stated her rank, which was in the 20th percentile. She then asked, "That isn't very good is it?" This statement and the question were asked in a normal conversational volume, so that the participant could not help but hear how she had performed. Moreover, the confederate placed her score in plain view as she asked her question so that the participant could see the score as she spoke. In response to the question, the experimenter stated in a loud whisper, "Well, I guess I have seen some students do worse than this." In the upward social comparison condition, the confederate had also computed her rank in advance. This placed her in the 99th percentile. To avoid the appearance that this person was bragging about her score, the experimenter in this condition took the lead in ensuring that the participant overheard the score. He reacted with surprise and blurted out "Ninety-ninth percent? Wow! I have never seen anyone score this high! That is an incredible score!" As he made this statement, he held the score card in a conspicuous way, such that the participant could not help but notice. In response to the experimenter's enthusiasm, the confederate quietly thanked him for the compliment.

Participants then completed two standardized questionnaires. The first was the state version of the PANAS (Watson, Clark, & Tellegen, 1988), a measure of current positive and negative affect with ratings made on a 1-to-5 Likert scale. The second questionnaire was the Heatherton and Polivy (1991) measure of state self-esteem, which assesses current evaluations of the self in terms of performance self-esteem (e.g., "I feel confident about my abilities"), social self-esteem (Reverse scored; e.g., "I am worried about looking foolish"), and appearance self-esteem (e.g., "I am pleased with my appearance right now"). Ratings were



**FIG. 1.** Performance self-esteem where 1 = low self-esteem and 9 = high self-esteem. SC = social comparison.

made on 1-to-9 Likert scales. Following these ratings, participants were probed for suspicion and then debriefed. No participant reported suspicion and many reported genuine surprise that their abilities were not being assessed.

### Results

To examine self-evaluations across conditions, 2 (comparison direction)  $\times$  2 (comparison other) ANOVAs were conducted on the dependent measures. These revealed no significant effects for the PANAS. However, a significant interaction was found for comparison direction and comparison other on the performance subscale of the state self-esteem measure,  $F(1, 56) = 7.27, p < .01, \eta^2 = .12$ . As shown in Fig. 1, this was due to a crossover pattern of means. When the confederate was White, participants had higher performance self-esteem in the downward social comparison condition ( $M = 7.76, SD = 1.35$ ) than in the upward social comparison condition ( $M = 7.04, SD = .98$ ), indicating a contrast effect. When tested as a simple main effect, this difference did not reach conventional levels of significance,  $F(1, 56) = 2.79, p < .10, \eta^2 = .05$ . In contrast, when the confederate was African American, participants had higher performance self-esteem in the upward social comparison condition ( $M = 7.61, SD = 1.33$ ) instead of the downward social comparison condition ( $M = 6.70, SD = .94$ ), indicating an assimilation effect. When tested as a simple main effect, this difference was found to be significant,  $F(1, 56) = 4.58, p < .05, \eta^2 = .08$ . No other effects on state self-esteem were found.

### DISCUSSION

This study demonstrates that psychological closeness can lead to activation of the reflection process on a self-esteem-relevant task. African American college students received bogus feedback on a measure of “natural math ability” and were then given social comparison information about the performance of either

a White or African American confederate. Although there is no "litmus test" for establishing esteem-relevance, as defined by SEM, the reactions of the participants to the White confederate indicate that they were using the confederate's scores as a standard for self-evaluation. In these conditions, participants had higher state self-esteem following downward comparison than upward comparison. This contrast effect is consistent with Tesser's (1988) definition of the "comparison process," whereby individuals feel threatened by the performance of superior others on esteem-relevant tasks (e.g., Morse & Gergen, 1977) and thus avoid psychological closeness with them (e.g., Pleban & Tesser, 1981).

It should be noted that the analysis of simple main effects revealed that the contrast effect with the White confederate did not reach conventional levels of statistical significance. However, there is reason to view even a slight tendency toward contrast as evidence that the participants considered it important to do well. First, the White confederate was an out-group member with respect to race and so participants should be less inclined to view this person as a relevant standard of comparison (e.g., Major et al., 1993). Second, the feedback given to the confederate indicated that she had done either extremely well or extremely poorly on the task. When individuals are extreme in their performance, they do not typically influence self-evaluations (e.g., Metee & Smith, 1977). Finally, participants received two pieces of social comparison information. They were told how they had done in relation to a White sample (roughly in the 67th percentile) *and* they were given information about their standing relative to the White confederate in the room. Thus, the information about the confederate's performance was not as informative as it might have been in a context in which there was no other reference point for self-evaluation. In summary, the tendency for a contrast effect on this task, even under conditions that were inhospitable to finding it, provides compelling evidence that participants wanted to do well relative to the White confederate (Prentice & Miller, 1992).

To the extent that the task was esteem-relevant, SEM predicts that increases in psychological closeness will augment contrast and thereby increase the threat of being outperformed by another. This was not the case. When the confederate was African American, and thus someone linked to the participant through shared membership in a meaningful social group, an assimilation effect occurred. Participants in these conditions had higher state self-esteem if they performed *worse* than the confederate, instead of better. To our knowledge, no laboratory study has demonstrated this type of assimilation effect on self-evaluations, in which both the participant and the confederate were given clear and unambiguous feedback about their performance. In the past, assimilation effects have been demonstrated using procedures in which only information about the target of comparison is given (e.g., Brewer & Weber, 1995; Lockwood & Kunda, 1997; Morse & Gergen, 1977; Pelham & Wachsmuth, 1995). We would argue that we found assimilation when both scores were provided because participants were not only assessing their personal ability. They were also assessing the ability of the

group, which was enhanced by the superior performance of another member of the in-group.

### *Limitations and Future Research*

The current pattern of results was predicted based on the assumption negative stereotypes would lead participants to evaluate the self on the basis of their social identity as an African American. As a result, it was predicted that they would identify with another African American taking the test and feel enhanced by an exceptional performance that was inconsistent with the stereotype and diminished by a poor performance that was consistent with the stereotype. Moreover, this pattern was predicted even though the participants performed worse than the in-group member when her performance was exceptional and better than the in-group member when her performance was poor. The results supported these predictions and so this lends support to the proposed mechanism.

Nevertheless, it must be acknowledged that these are the results from a single study and future research must be conducted to determine if the predicted results occurred as a result of the proposed process. A reasonable alternative to the hypothesized mechanism is that participants identified with other in-group members because this individual shared membership with them in a statistically distinct minority group (i.e., African American). If so, negative stereotypes may have played no role in the tendency to identify with other members of the in-group. In support of this possibility, recall that Brewer and Weber (1995) demonstrated in-group assimilation effects for minority groups that were formed experimentally through a minimal group assignment. Brown and colleagues (Brown et al., 1992) have demonstrated similar effects simply by having participants share the same birthday as a comparison other (see also Blanton, in press). Given these findings, it is reasonable that assimilation effects could occur "simply" because a comparison other shares membership in a minority ethnic group.

Future research can determine this using a variety of experimental designs. First, studies can determine the effects of the distinctiveness of a meaningful in-group. For instance, studies can assess the effects of social comparison on self-evaluation in the context of negative stereotypes about gender versus negative stereotypes about a minority racial or ethnic group. To the extent that gender stereotypes do not lead to assimilation effects, this would argue against their importance in favor of distinctiveness. Alternatively, research can manipulate stereotype salience. For instance, the design from the current study could be modified so that only half of the participants are exposed to stereotype-salience procedures (e.g., race primes and references to "test standardization"). We would predict that in-group assimilation will be attenuated to the degree that stereotype salience is reduced but this result must be demonstrated. Finally, research should determine the effect of positive stereotypes on assimilation. This work can be conducted using positive stereotypes about distinct minority groups (e.g., stereotypes about Asians' intellectual ability) and about common majority groups (e.g.,

stereotypes about Whites' intellectual ability). In short, the current study is an introduction to the manner in which meaningful groups influence self-evaluation via social comparison but a great deal of additional research is needed before the underlying mechanisms can be understood.

### IMPLICATIONS

Despite the need for future research, our study does demonstrate that people can look to members of meaningful in-groups as a source of self-esteem in the context of a negative stereotype. These findings may have important implications not only for self-evaluation but also for task performance. Research suggests that upward comparison can lead individuals to be more optimistic about their own level of competence (Lockwood & Kunda, 1997), which can ultimately benefit performance (Blanton, Buunk, Gibbons, & Kuyper, 1999; Gibbons, Blanton, Buunk, & Eggleston, 2000). The current study puts an important set of restrictions on these findings, however, if they are applied to African American students. It may be that African Americans at historically White colleges will be less encouraged by upward social comparison if most of the salient targets of comparison are White. Such comparisons may undermine optimism and future performance. In contrast, comparison with upward targets who are African American may be especially beneficial. If so, this would suggest that colleges interested in creating an environment hospitable to the academic goals of African Americans should facilitate the visibility of African American role models.

Efforts to provide role models in college may have benefits for the academic performance of African Americans that go beyond those suggested by the current literature on social comparison and performance. Steele and colleagues (1997; Aronson & Steele, 1995) have found evidence that African Americans are at risk for performing poorly in school because of a type of evaluation apprehension which they term *stereotype threat*. This is the social anxiety brought upon by feeling personally responsible for disconfirming negative group stereotypes. Our results suggest that such anxiety may be reduced by upward social comparison with African Americans who disconfirm the negative stereotypes. If so, visible and tangible role models in schools, and interventions that increase contact with successful African American students, may help to alleviate stereotype threat for African Americans at historically White colleges and universities. The result of this may be improved performance in the classroom. Ultimately, personal success in school may have more positive effects on self-esteem than any that can be acquired from enjoying the successes of another.

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