

Think Unto Others: The Self-Destructive Impact of Negative Racial Stereotypes

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Although much research on stereotyping has documented significant negative consequences for the targets of unfavorable racial stereotypes, relatively little work has examined negative implications for the *holders* of such stereotypes. The present research highlights a notable cost for stereotype holders. In two studies, we demonstrated that racial stereotype activation can elicit maladaptive, stereotype-consistent behavior for nonstereotyped individuals who hold a stereotype. Non-African-American participants who were subtly primed with the African American stereotype performed significantly *worse* on a standardized math test than participants who were not so primed. The effect of the prime was significantly stronger for those individuals who spontaneously considered the stereotype from the first-person perspective. Implications and possible mechanisms of the effect are discussed. © 2001 Academic Press

Negative racial stereotype application is associated with costs and benefits for both the social perceiver and the social target. However, it seems that most benefits of racial stereotyping are afforded to the social perceiver, whereas most costs are borne by the stigmatized target. The current research examines a potential social cost to the people who hold or are at least cognizant of unfavorable racial stereotypes. We conducted two studies to investigate whether activating an unfavorable racial stereotype in nonstereotyped group members could produce an unfavorable out-

come for the stereotype holder that is consistent with the stereotype.

Benefits of Stereotyping for the Stereotype Holder

Most of the literature suggests that stereotyping is beneficial for perceivers. For example, functional approaches to stereotyping (e.g., Fiske, 1993; Macrae, Hewstone, & Griffiths, 1993; Macrae, Milne, & Bodenhausen, 1994; Macrae, Stangor, & Milne, 1994; Sherman, Lee, Bessenoff, & Frost, 1998) have emphasized the cognitive efficiency that stereotyping affords social perceivers. In addition to minimizing effort, this processing efficiency permits the stereotype holder to devote cognitive resources to other activities (e.g., Macrae, Milne, & Bodenhausen, 1994; Macrae, Stangor, & Milne, 1994; Sherman et al., 1998), and this, of course, is typically beneficial to the perceiver. The cognitive efficiency afforded by stereotyping is not without at least some cost, however. Most notably, stereotypes may not be an accurate basis of judgment (Fiske, 1988; but see also Brodt

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& Ross, 1998; McCauley, Jussim, & Lee, 1995). Nevertheless, in general, the available literature suggests that the perceiver benefits of cognitive efficiency outweigh one's consequent costs due to inaccuracy.

Cost of Stereotyping for the Stereotyped Target

For the stereotyped target, however, there is clear harm. The target does not enjoy the cognitive efficiency afforded by stereotype application, but must pay the costs associated with stereotype inaccuracy. These costs include stereotype-based discrimination and the elicitation of self-fulfilling prophecies (e.g., Chen & Bargh, 1997; Rosenthal & Jacobson, 1968; Snyder, Tanke, & Berscheid, 1979). However, even in the absence of strong perceiver expectancies, stereotype activation can still lead to stereotype-confirming behavior in members of the stereotyped group. Steele (1997), for example, has suggested that the threat of confirming an unfavorable stereotype in a self-relevant domain could create undue pressure to perform. The pressure created by the fear of confirming negative stereotypes may, ironically, have the opposing influence of decreasing performance or leading to disidentification with the performance domain. Consequently, one's behavior confirms the very stereotype that one attempted to avoid.

Consistent with this idea, Steele and Aronson (1995, Experiment 4) demonstrated that mere stereotype salience could be sufficient to impair the performance of African Americans on a standardized test. African American participants who indicated their race on a demographic questionnaire prior to completing a portion of the verbal GRE performed worse on the test than both White participants and African American participants who did not indicate their race prior to the test. Unfortunately, tests of potential stereotype threat mediators such as evaluation apprehension, anxiety, effort, or confidence have yielded inconclusive results (e.g., Aronson et al., 1999; Steele & Aronson, 1995). One result is clear, however. When negative stereotypes about one's own group are activated in individuals, their stereotype-relevant performance can be impaired.

Cost of Stereotyping for the Stereotype Holder

Less attention has been paid to the costs that might accrue to the stereotype holder. Recent research, however, suggests that stereotype activation can lead to stereotypic behavior in an individual, even if he or she is not a member of the stereotyped group. For example, Bargh et al. (1996, Experiment 2) demonstrated that activation of the elderly stereotype in college students led these students to act in an elderly manner—walking more slowly after the experiment had ostensibly ended. In another study (Bargh et al., 1996, Experiment 3), participants who were subliminally primed with African American faces reacted in a more hostile fashion to a frustrating event than the participants who were primed with White faces. Although it is plausible that the

behavior of the participants in the latter experiment was mediated by their perceptions of the experimenter (see e.g., Carver, Ganellen, Froming, & Chambers, 1983; Srull & Wyer, 1979), it is also possible that priming participants with African American faces influenced their behavior in a more direct fashion, perhaps by activating behavioral representations associated with the stereotype. Consistent with the latter interpretation, a recent series of experiments has demonstrated the impact of priming on behavior in a paradigm that did not involve reactions to others' behavior. For example, Dijksterhuis and van Knippenberg (1998; see also Dijksterhuis, Spears, Postmes, Stapel, Koomen, van Knippenberg, & Sheepers, 1998) showed that the activation of the soccer hooligan stereotype can lead to performance decreases on general knowledge questions, whereas activation of the professor stereotype can lead to performance increases on such questions. Based upon such research, it seemed plausible that the activation of negative *racial* stereotypes could produce similar consequences.

If this were true, the behavioral priming perspective could provide an additional explanation for the effects of stereotype activation on behavior. According to this perspective, just as any two mental representations can become closely linked with repeated pairings, so too can behavioral and goal representations become linked with other mental representations over time with repeated pairings (see Bargh, 1990, 1997; Bargh & Gollwitzer, 1994). Consequently, behavior may directly follow from the activation of related mental representations (e.g., stereotypes). This paradigm therefore suggests that stereotype salience could impact performance via stereotype threat mechanisms, as suggested by Steele (1997), but also more implicitly by behavioral priming (Wheeler & Petty, 2000). According to the behavioral priming perspective, such effects might be demonstrable in non-African-American participants who would presumably have no fear of confirming the African American stereotype. If such a result were found, it would suggest that the subjective experience of stereotype threat is not necessary for performance decrements following increased stereotype salience.

Current Research

In the present experiments, our goal was to examine the performance effects of priming racial stereotypes in individuals who did not belong to the stereotyped groups. We tested the hypothesis that activation of the African American stereotype would impact the performance of non-African-Americans on a standardized math test. In two studies, non-African-American college students first engaged in a task that made the African American stereotype salient or not. Then, they completed a timed math test adapted from the Graduate Records Exam (GRE). We hypothesized that performance would be impaired for participants who were subtly primed with the African American stereotype, even though they were not members of the stereotyped category.

EXPERIMENT 1

Method

Participants

Participants were 89 non-African-American students from introductory psychology courses at Ohio State University who received partial course credit for their participation.

Procedure

All participants were prescreened for their scores on the Modern Racism Scale (McConahay et al., 1981) in mass administration sessions at the beginning of the quarter. Those with scores in the upper and lower quartiles were recruited for their participation in the study.¹

All participants were informed that the research involved two separate and unrelated tasks. In order to conceal the purpose of the stereotype activation task, participants were told that the first task was to examine the “role of hemispheric dominance on creativity tasks.” The instructions indicated that participants would be assigned to write a creative essay about an assigned topic with either their dominant or nondominant hand in order to examine the relationship between hemispheric brain activation and creativity. In fact, all experimental sheets instructed the participants to write with their dominant hands.

Priming manipulation. Participants were instructed to write an essay about a day in the life of an OSU student named either “Tyrone” or “Erik” Walker. These two sets of instructions were used to prime the African American stereotype or not, respectively. All participants were told that they would have 5 min to complete their essays. Aside from the name/topic manipulation, all participants received identical instructions.

Measures. Upon completion of the priming task, participants were told that they would be starting Experiment 2. The instructions indicated that this experiment involved work with another lab to develop test materials. Participants were told that they would have 20 min to complete the task. The materials consisted of 30 questions excerpted from a math section of the GRE. Each question was accompanied by five multiple-choice options.

After 20 min, participants were instructed to stop their work and were then given a final packet that included ancillary measures concerning the test and the experimental procedures. The items assessed perceptions of math ability, the number of math courses they had taken in high school and college, and suspicions they had concerning the experiment’s purpose or procedures. After completion of this packet, participants were thanked, debriefed, and dismissed.

¹ Previous research on this participant population has revealed that extreme differences on the MRS are necessary to detect effects (e.g., Petty, Fleming, & White, 1999).

No participants accurately reported suspicion concerning a connection between the priming manipulation and the math test.

Results and Discussion

Math Performance

Scores on the math test were computed as they are in GRE administrations. That is, scores on the test were equal to the number of correct answers, minus one-fifth of a point for each incorrect answer to adjust for guessing. Participants were assigned as either high or low in Modern Racism according to their quartile scores obtained earlier. Math scores were submitted to a 2 (Priming condition: Erik vs Tyrone) \times 2 (Modern Racism: High vs Low) between-subjects ANOVA. The analysis indicated a significant main effect for priming condition, $F(1, 85) = 6.85, p = .01$, such that participants who wrote about Tyrone ($M = 4.5$) scored lower on the test than participants who wrote about Erik ($M = 6.2$). Additionally, there was a marginally significant main effect of Modern Racism such that individuals high in Modern Racism ($M = 4.8$) showed a tendency to get fewer answers correct than individuals low in Modern Racism ($M = 6.0$), $F(1, 85) = 3.11, p = .08$. Importantly, the effect of priming condition was not moderated by racism, $F(1, 85) = .006, p = .94$, indicating that the effect of the prime was equal for individuals both high and low in racism.

Additional Analyses

Analyses on the ancillary measures were conducted. Across the experimental conditions, participants did not report exerting differential effort, $F(1, 84) = 1.77, p > .18$. Likewise, participants in each condition found the test equally difficult, $F(1, 84) = 1.24, p > .26$.

Analyses of the self-reported math ability and experience items were also conducted. Participants’ self-reported math ability and experience were significantly correlated, $r = .36, p = .001$, and thus for simplicity these items were combined to provide an overall index of math competence (though analyses on each item separately revealed the same effects). The math index was calculated as the mean of the standardized scores for the two variables. The 2 (Priming Condition) \times 2 (Modern Racism) ANOVA revealed a main effect of priming condition, $F(1, 84) = 7.81, p = .006$, such that individuals who wrote about Tyrone ($M = -.23$) reported lower math competence than individuals who wrote about Erik ($M = .23$).

The unexpected relationship between the prime assignment and reported math competence precluded clear causal inference concerning reported math competence and performance on the math GRE. Because math competence was reported after the priming manipulation and math test, it was possible that reported math competence was influenced by the priming manipulation and/or performance on the test.

For example, participants may have felt that they were worse at math because either the prime or performance on the math test altered their self-perceptions. Self-presentational concerns could have also operated—participants who performed poorly could have reported less math competence in an attempt to save face (e.g., “I’m not stupid. I just haven’t had much math experience”).

Yet another alternative is that this relation was the result of a failure of random assignment. That is, participants with more math competence could have been disproportionately assigned to the Erik condition. Such a failure of random assignment might have been responsible for both the observed performance and self-rated competency differences between priming conditions.

EXPERIMENT 2

To address these possibilities and obtain a cleaner report of math competence, we conducted a second study. In this experiment, participants reported their math competence either after they had been primed and taken the math test (as in Experiment 1) or at the beginning of the experiment. Our primary hypothesis was the same as in Experiment 1. Participants primed with the African American stereotype were expected to perform more poorly on the math test than participants who were not primed with the stereotype.

Method

Participants. Participants were 68 non-African-American students enrolled in introductory psychology courses at Ohio State University who received partial course credit for their participation.

Procedure. The methodology was identical to that used in Experiment 1 with a few exceptions. First, since it had no effect in Experiment 1, Modern Racism was not assessed. Second, half of the participants reported their math training and general math ability after the priming manipulation and the math test, and half gave their responses to these questions before the priming manipulation and math test.

Additionally, at the end of the experiment, participants were instructed to report the race of the person they wrote about during the first task. This open-ended question was included to determine those for whom the priming manipulation was successful in making the appropriate race salient (i.e., those who perceived Tyrone to be African American or Erik to be White).

Results

If the effects of priming condition on math performance were due to the manipulation of the perceived racial category of the essay target, the effects should be the strongest for those participants who reported that the “Tyrone” they wrote about was African American or that the “Erik” they

TABLE 1
Mean Math Scores as a Function of Priming Condition, Form Order, and Prime Race Identification (Experiment 2)

	Reported math competence		Total
	Before prime	After test	
Correctly identified prime race			
“Tyrone” prime	7.4	4.1	5.5
“Erik” prime	10.6	8.0	9.0
Total	9.2	6.5	
Did not correctly identify prime race			
“Tyrone” prime	6.9	6.6	6.8
“Erik” prime	8.3	5.8	7.3
Total	7.5	6.3	

wrote about was White. To test for these effects, we computed a factor indicating the “correct” race of their essay target (i.e., Tyrone as African American and Erik as White). Importantly, very few participants (i.e., 5) listed an *incorrect* race for Erik or Tyrone. Rather, the majority of participants who did not report the “correct” race of their essay target failed to report any race at all. Such participants typically responded with answers such as “I don’t know,” “I didn’t think about it,” or “There was no race given.” Participants who failed to list a race for their essay target were equally distributed across priming conditions (i.e., 16 and 15 for the Tyrone and Erik conditions respectively).

The following analyses were conducted as 2 (Priming condition: Erik vs Tyrone) \times 2 (Form order: Reporting math competence before vs after the prime and math test) \times 2 (Race identification: correct vs not correct identification) ANOVAs. This analysis on the math test scores yielded three notable effects (see means in Table 1). Participants who reported their math competence before the prime and test performed better on the math test than participants who reported their competence after the test, $F(1, 60) = 4.19, p = .045$. Additionally, participants who wrote about Erik during the priming manipulation achieved higher scores on the math test than participants who wrote about Tyrone, $F(1, 60) = 4.58, p = .037$. Thus, activation of the African American stereotype lowered performance on the math test.²

This priming main effect was qualified by a marginal

² A separate sample ($N = 20$) from the same population as Experiments 1 and 2 was administered the same math test, but without any essay-writing task before the test. These participants served as a no-prime control condition. The data from this sample were then compared with the data from Experiments 1 and 2. Results indicated significant overall differences, $F(2, 174) = 5.90, p = .003$, such that participants in the Erik condition ($M = 7.0$) performed no differently than the no-prime control group ($M = 7.1, p = .92$), but that participants in the Tyrone condition ($M = 5.3$) performed significantly worse than both Erik participants ($p = .001$) and control participants ($p = .03$). This pattern is consistent with the view that

interaction between priming condition and race identification, $F(1, 60) = 3.22, p = .08$, such that participants who “correctly” identified the racial categories of Tyrone and Erik demonstrated stronger effects of the prime, $F(1, 26) = 6.66, p = .016$, than participants who did not correctly identify a racial category, $F(1, 34) = .18, p = .67$. This analysis is consistent with the explanation that stereotype activation was responsible for the observed behavioral differences. It is not possible to conclusively determine whether this effect indicates the relative salience of the racial prime (i.e., participants who failed to report a racial category did not have a racial category salient; Lepore & Brown, 1998) or whether some other account is better (e.g., recall of race is a subtle measure of prejudice). Nevertheless, the detrimental effect of race priming is sufficiently strong to manifest itself when all of the participants are included in the sample, providing a replication of Experiment 1.

Additional Analyses

Analyses on self-reported effort replicated those found in Study 1. Participants did not differ in their self-reported effort, $F(1, 60) = 1.74, p > .19$, or their perceptions of test difficulty, $F(1, 60) = 2.91, p = .09$, as a function of their essay target.

Additional analyses were conducted on participants' perceptions of math competence. As in Study 1, the two questions assessing math competence were significantly correlated, $r = .49, p < .001$, and were standardized and averaged to create a math competence index. The ANOVA on this index did not yield any statistically significant main effects or interactions involving priming condition (all $ps > .14$). The only significant effect obtained was a main effect for form order, $F(1, 59) = 7.65, p = .008$, such that participants who reported their math competence before the test indicated greater math competence than those who indicated their math competence after the test.

ADDITIONAL ANALYSES OF EXPERIMENTS 1 AND 2

Given the nearly identical results for Studies 1 and 2, we analyzed them together for the purpose of better understanding some possible mechanisms underlying the key finding. First, we conducted content analyses of the written essays to determine if the written content of the essays was related to performance on the test. In these content analyses, we coded for references to features of the African American stereotype (e.g., playing football or basketball) and general references to negative school performance (e.g., missing class, failing).³ Both stereotypic content and references to school

negativity might be expected to be associated with greater performance decrements.

Additionally, we coded for whether the essay was written from the first- or third-person perspective. Though participants were given no instructions about which perspective to adopt, a sizeable minority of the participants chose to write their essays in the first person. It might be expected that those who wrote in the first person would show stronger effects of the prime on their test performance, either as a result of “putting themselves in the person's shoes” or because of the possibly higher elaboration that might accompany a first-person perspective. For example, it is possible that those who adopted a first-person perspective engaged in more active thinking, and this enhanced elaboration led the prime to have a greater impact on interpretation of the test (e.g., “this test is not important to me,” see Petty & Jarvis, 1996; Petty, 2001).

Chi-square analyses suggested that, consistent with expectations, individuals in the Tyrone condition were significantly more likely to include stereotypic content in their essays ($\chi^2 = 12.94, p < .001$). Individuals in the Tyrone and Erik conditions did not differ in the number of references to negative school performance or in their tendency to write their essays from a first-person perspective ($ps > .33$). In order to determine which individuals in the Tyrone condition were most likely to exhibit performance decrements, we conducted an additional ANOVA containing factors indicating the presence or absence of essay stereotypic content and the point of view from which the essay was written. Given the rationale outlined above, individuals in the Tyrone condition should show greater performance decrements when their essays included stereotypical content and when their essays were written in the first person.⁴

In addition to these factors, we included within-subjects factors to better determine the nature and location of the

or participation in stereotypic athletic activities, hostility, gang activity, poverty, musical ability, and so forth. Perhaps because the essay topic indicated that Tyrone was a college student, nearly all stereotype references were mentions of stereotypic athletic sport activities. For example, one participant wrote, “[Tyrone] is attending OSU because he is a great athlete (sic). He has scholarships for football and basketball.” However, participants also made reference to physical features (e.g., “His lips were so big . . . His nose was broad . . . His friends called him Fat Albert”) and race directly.

⁴ On the surface, the latter prediction might seem in conflict with recent findings showing decreased effects of stereotypes under high levels of self-awareness, but this prediction is actually complementary. Dijksterhuis and van Knippenberg (2000) found that high levels of self-awareness, manipulated by the presence of a mirror, eliminated the impact of primes upon behavior. They attributed this phenomenon to the increased salience of *competing* behavioral cues that accompany self-awareness. Writing as though the actions and motivations of a stereotyped category member are one's own, however, should serve to reduce the salience of competing self-generated behavioral cues and increase the likelihood of the stereotype-relevant behaviors being enacted. This distinction, however, points to the importance of the type of self involvement in predicting moderation of primes on behavior.

activation of the African American stereotype lowered performance and that activation of a White stereotype did not facilitate performance.

³ Included in our stereotype coding were features such as athletic ability

TABLE 2
Mean Overall Math Scores as a Function of Priming Condition and Essay Content

	Essay contained stereotype content	Essay did not contain stereotype content	Total
"Tyrone" prime	3.88 _a (<i>n</i> = 27)	6.00 _b (<i>n</i> = 49)	5.24 (<i>n</i> = 76)
"Erik" prime	8.29 _b (<i>n</i> = 9)	6.88 _b (<i>n</i> = 71)	7.04 (<i>n</i> = 80)
Total	4.98 (<i>n</i> = 36)	6.52 (<i>n</i> = 120)	

Note. Means that do not share a common subscript differ at $p < .05$.

performance differences on the test. The 30-item test was split into two groups of 15 questions (i.e., first 15 and second 15 items). Likewise, a median split on item difficulty (as established by control participants) was conducted within each item set.⁵ Performance was then analyzed using a 2 (Priming Condition: Erik vs Tyrone) \times 2 (Stereotype content: present vs absent) \times 2 (Point of view: first vs third person) \times 2 (Item Set: First 15 or Last 15 items) \times 2 (Item Difficulty: Easy vs Difficult) mixed ANOVA. This analysis yielded a number of insights.⁶

First, this analysis yielded a significant main effect of priming condition, $F(1, 148) = 20.64, p < .001$. Second, however, this main effect was moderated by stereotype content, $F(1, 148) = 4.05, p < .05$, such that performance decrements in the Tyrone condition occurred primarily among individuals whose essays contained African American stereotypic content (see Table 2). Third, the analysis yielded a significant interaction between point of view and priming condition, $F(1, 148) = 7.29, p < .01$, such that differences between the Erik and Tyrone conditions occurred primarily for those individuals who wrote their essays in the first person (see Table 3).

The repeated-measures analyses yielded insight into the precise nature and location of these differences. A priming condition \times item difficulty interaction, $F(1, 148) = 4.48, p = .04$, indicated that performance differences between experimental conditions occurred primarily for the difficult items. Participants in the Tyrone condition performed significantly worse than participants in the Erik condition on the difficult items ($M_s = 1.1$ and 2.3, respectively) but not

⁵ The 20 control participants (see footnote 3) were used to determine item difficulty. That is, the 15 easiest items were distinguished from the 15 most difficult items based on the overall performance of this group.

⁶ In addition to the effects discussed below, this analysis revealed a significant main effect of item difficulty, $F(1, 148) = 69.69, p < .001$, such that participants performed worse on the difficult items. This main effect was qualified by an item difficulty \times point of view interaction, $F(1, 148) = 5.69, p = .02$, and an item difficulty by item set interaction, $F(1, 148) = 31.66, p < .001$, such that performance differences between easy and hard questions were greater for participants who wrote in the third person and on the early test items. When these effects were modified by the race of the prime, they are discussed in the text.

on the easy items ($M_s = 4.2$ and 4.8, respectively). Additionally, a priming condition \times item position interaction, $F(1, 148) = 18.28, p < .001$, indicated that performance differences between experimental conditions occurred primarily for early test items rather than late test items. Both of these interactions were qualified by a marginal four-way priming condition \times point of view \times item difficulty \times item position interaction, $F(1, 148) = 2.9, p = .09$. This interaction indicated that performance differences between experimental conditions on the early, difficult items were greater for individuals who wrote their essays in the first person [three-way $F(1, 28) = 4.56, p = .04$], than those who wrote their essays in the third person [three-way $F(1, 120) = .65, p = .42$].

We also examined the total number of items attempted on the exam using this same model. A main effect of item position, $F(1, 148) = 249.60, p < .001$, indicated that participants attempted fewer of the items in the second half. This reflects the fact that most participants did not have sufficient time to complete all test items. However, this item position main effect was qualified by a priming condition \times item position interaction, $F(1, 148) = 5.67, p < .02$. Although there were no differences between conditions in the number attempted in the first half of the test ($p = .75$), participants in the Tyrone condition tended to attempt more items in the second half of the test ($p = .07$).⁷

Taken together, these results indicate that the performance decrements observed by the individuals in the Tyrone condition were substantially larger for those who wrote in the first person and those who wrote stereotypic things in their essays. The internal analyses paint the picture of individuals in the Tyrone condition as fast, but superficial test takers. Their performance on early items suffered, particularly for the more difficult questions. Participants in the Tyrone condition may have failed to adequately analyze the

⁷ This analysis also yielded an item difficulty by item set interaction, $F(1, 148) = 57.83, p < .001$, such that participants attempted relatively more easy questions early in the test and relatively more hard questions later in the test.

TABLE 3
Mean Overall Math Scores as a Function of Priming Condition and Essay Point of View

	Essay written from first-person point of view	Essay written from third-person point of view	Total
"Tyrone" prime	2.57 (<i>n</i> = 19)	6.14 _b (<i>n</i> = 57)	5.24 (<i>n</i> = 76)
"Erik" prime	7.63 _b (<i>n</i> = 15)	6.91 _b (<i>n</i> = 65)	7.04 (<i>n</i> = 80)
Total	4.80 (<i>n</i> = 34)	6.55 (<i>n</i> = 122)	

Note. Means that do not share a common subscript differ at $p < .05$.

early problems to obtain the proper solution. Though individuals in the Tyrone condition attempted more items on the second half of the test, they did so without any accompanying increase in performance. This type of problem-solving behavior is consistent with the stereotype that African American “athletes” would view academic tests as unimportant. When faced with a difficult item, Tyrone participants may have simply guessed and moved on to later items rather than persisted until they achieved the correct answer.

GENERAL DISCUSSION

Non-African-American students for whom the African American stereotype was activated performed worse on a standardized math test than those who were not so primed. Thus, salience of the African American stereotype appears to impair academic performance not only for African Americans (Steele, 1997), but also for members of other racial groups. This research might therefore suggest an additional mechanism through which African Americans (and other stereotyped groups) show stereotypic behavior. Not only might academic performance be decreased via stereotype threat concerns, but stereotype salience might decrease performance via behavioral priming mechanisms as well. Experiment 2 provided tentative evidence that the strength of the priming effect is dependent upon the relative salience of the stereotype for the individual. Specifically, participants who indicated that the “Tyrone” in their essays was an African American showed greater performance decrements on the math test than participants who did not indicate that “Tyrone” was an African American. The additional analyses also indicated that the effects of the prime were stronger for individuals who included stereotypic content in their essays and who wrote their essays from the first-person perspective. These findings point to the role of the stereotype itself in eliciting the behavioral change and suggest that the involvement of the self can be a very important determinant of the magnitude of behavioral change induced by priming.

Mechanisms of Behavioral Priming

Many studies (e.g., Higgins et al., 1977; Srull & Wyer, 1979) have shown that schemas, when activated, can provide an interpretive framework that influences later social judgment. However, an automatic behavior perspective holds that activated schemas can also impact overt behavior. Most researchers within this area emphasize an ideomotor explanation for these types of effects (e.g., Bargh et al., 1996; Dijksterhuis & van Knippenberg, 1998). According to the ideomotor account, because trait schemas are likely to contain information about concomitant behaviors, these behaviors are more likely to be initiated when the trait schema is highly accessible. Thus, in the current experiments, writing about Tyrone may have activated the African American stereotype-relevant trait of athleticism, and this trait may

have led to the enactment of stereotypically related behaviors in the testing situation (e.g., guessing and failing to carefully read the test items).

The present data provide additional insight into how this process might operate. Although mere activation of a stereotype construct can elicit behavioral change, the magnitude of such change is increased when such content is tied to the self-concept. Previous work (Dijksterhuis et al., 1998, Experiment 3) demonstrated that the self can moderate trait activation following exemplar priming. After an exemplar prime, traits contrastive to the implications of the stereotype showed increased accessibility, but such accessibility was moderated by a preceding self vs other prime.⁸ Based upon these results, Dijksterhuis et al. argued that self-involvement is critical in eliciting behavioral contrast following an exemplar prime. Unfortunately, a test of moderation using their data was not possible because no behavioral measure was collected. The experiments in the current article provide the first demonstration that self-involvement is related to increases in the magnitude of behavioral assimilation effects and that such increases can result from stereotype primes.

Conclusion

Although stereotypes can simplify the process of social perception, the current experiments have identified a significant cost to the holders of unfavorable stereotypes about African Americans. Specifically, activation of the African American stereotype led non-African-American participants to engage in maladaptive, stereotype-consistent behavior. Additionally, these results point to an alternate mechanism through which African Americans exhibit decreased academic performance when their race is made salient. Steele and Aronson (1995) showed that when the race of African Americans was made salient by simply filling out a demographic questionnaire, they showed lowered test performance. We extended these findings by demonstrating that one need not be a member of the stereotyped group to show decreased performance. Therefore, it seems that the salience of stereotypes might not only decrease performance via stereotype threat mechanisms (Steele, 1997), but also by activating behavioral instantiations of stereotype-relevant traits.

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⁸ See Dijksterhuis et al. for an explanation of why the contrastive features of the stereotype were activated under these conditions.

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