

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/320066608>

# ‘I’m Black and I’m Proud’: A Majority Ecological Context Protects Affective Aspects of Black Identity Under Stereotype Threat

Article in *Race and Social Problems* · September 2017

DOI: 10.1007/s12552-017-9216-y

CITATIONS

0

READS

31

7 authors, including:



**Andre Oliver**

San Francisco State University

1 PUBLICATION 0 CITATIONS

[SEE PROFILE](#)



**Lyndsey Wallace**

University of California, Berkeley

2 PUBLICATIONS 2 CITATIONS

[SEE PROFILE](#)



**Avi Ben-Zeev**

San Francisco State University

30 PUBLICATIONS 1,167 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Monty Hall [View project](#)



Published in final edited form as:

*Race Soc Probl.* 2017 December ; 9(4): 313–320. doi:10.1007/s12552-017-9216-y.

## 'I'm Black and I'm Proud': A Majority Ecological Context Protects Affective Aspects of Black Identity Under Stereotype Threat

Andre' Oliver<sup>1</sup>, Ghilamichael Andemeskel<sup>1</sup>, Carlise R. King<sup>1</sup>, Lyndsey Wallace<sup>1</sup>, Serie McDougal<sup>2</sup>, Kenneth P. Monteiro<sup>2</sup>, and Avi Ben-Zeev<sup>1</sup>

<sup>1</sup>Department of Psychology, San Francisco State University, 1600 Holloway Avenue, EP 301, San Francisco, CA 94132-4168, USA

<sup>2</sup>College of Ethnic Studies, San Francisco State University, San Francisco, CA, USA

### Abstract

We provide evidence that stereotype threat, a phenomenon that causes stigmatized individuals to experience group-based evaluative concerns (Steele in *Am Psychol* 52:613–629, 1997; Whistling Vivaldi and other clues to how stereotypes affect us, W.W. Norton, New York, 2010), impacts affective aspects of Black identity as a function of majority versus minority ecological contexts. Black/African-American students, enrolled in either Africana Studies (Black ecological majority) or Psychology (Black ecological minority), completed private and public regard subscales from the Multidimensional Inventory of Black Identity (Sellers et al. in *Pers Soc Psychol Rev* 2:18–39, 1998) at baseline (Time 1) and after being randomly assigned to a stereotype threat or no-threat/control condition (Time 2). In threat, participants were introduced to a 'puzzle' task as diagnostic of intellectual abilities, whereas in no-threat the same task was introduced as culture fair, such that people from different racial/ethnic groups had performed similarly on this task in the past. In Psychology, students under threat exhibited a simultaneous decrease and increase in private and public regard, respectively, a pattern shown in the literature to be associated with discrimination-based distress and lesser well-being in Black ecological minority environments. In contrast, Africana Studies students' racial identity under threat remained intact. We discuss the protective effects of Africana Studies on racial identity and implications for educational reform.

### Keywords

Africana Studies; Stereotype threat; Black identity; Private regard; Public regard; Multidimensional Inventory of Black Identity (MIBI)

### Introduction

Stigmatized individuals, who pursue endeavors that have been traditionally prohibitive to their social groups, are susceptible to experiencing stereotype threat (Steele 1997, 2010). This phenomenon occurs when environmental cues, which signal a lack of belonging (e.g., finding oneself in the numerical minority, see Inzlicht and Ben-Zeev 2000), elicit stereotype-

based evaluative concerns, such as worries about being a ‘bad ambassador’ to one’s group and/or being reduced to a stereotype (Shapiro 2011). Stereotype-based evaluative concerns have been documented to increase physiological arousal and self-monitoring, which, in turn, deplete working memory capacity, and eventuate in negative outcomes, such as performance below one’s ability, decreased sense of belonging and well-being, as well as early exit from domains in which one’s group is under-represented (e.g., Shapiro 2011; Steele 1997; Murphy et al. 2007; Schmader et al. 2008).

A major environmental cue that gives rise to stereotype threat is numerical representation. Inzlicht and Ben-Zeev (2000) demonstrated that women who identified with success and achievement in mathematics underperformed on a mathematics, but not on a verbal test, when men were simply present in their testing environment (also see, Inzlicht and Good 2006; Sekaquaptewa and Thompson 2003). Moreover, Inzlicht and Ben-Zeev showed that women’s underperformance was proportional to the number of men in the room. Ben-Zeev and Kirtman (2012) extended these findings beyond the laboratory and to rich ecological settings. They found that women at a single-gender undergraduate institution were protected from stereotype threat effects as compared to women counterparts at a sister coed college. Ben-Zeev and Kirtman (2012) reasoned that being part of an institutional culture in which women not only have the predominant numerical representation, but also possess access to a larger number of female role models (see Dasgupta and Asgari 2004), and to instructional feedback that communicates high standards for performance in stigmatized domains (e.g., Astin and Sax 1996; Tidball et al. 1999) leads to increased resilience to stereotype threat.

Herein, we use a similar ecological lens to Ben-Zeev and Kirtman’s (2012) (also see Bronfenbrenner 1979; Hurd et al. 2013) to examine whether stereotype threat negatively impacts Black individuals’ racial identity in contexts in which they constitute a minority versus a majority. McGee and Martin (2011) argued that to effectively manage stereotype-based worries, and especially in domains such as mathematics and engineering in which Black individuals are underrepresented, an individual must negotiate and assert what it means to be Black. McGee and Martin (2011) conducted interviews with 23 Black mathematics and engineering college students. They surmised that students’ success was due, in large part, to students’ ability to define Blackness ‘on their own terms,’ and to progress from attempting to prove stereotypes wrong to serving as role models for students of color. Students’ affiliation with academic and social organizations (e.g., National Society of Black Engineers) seemed to be a protective factor, highlighting the importance of Black majority contexts. The fact that Black students can and do develop resilience to stereotypes alleging intellectual inferiority, and even turn these negative stereotypes into increased motivations to persevere and succeed (also see, Jamieson et al. 2010), led McGee and Martin to conclude that stereotype threat effects are by no means deterministic.

We concur with McGee and Martin (2011) that there exists robust evidence that stereotype threat negatively impacts Black individuals’ intellectual performance (e.g., Brown and Day 2006; Chavous et al. 2003; Oyserman et al. 2007; Taylor and Antony 2000; Steele and Aronson 1995), but that the issue of how Black students negotiate racial identity (and manage stereotypes) under threat has been understudied. To this end, we designed the current study to focus on stereotype threat effects on affective aspects of Black identity—

*private regard*, the extent to which one feels positively or negatively about being Black and about Black people (e.g., ‘I am happy about being Black’), and *public regard*, the extent to which one perceives broader society to feel positively or negatively toward Black people (e.g., ‘In general, others respect Black people’) (Multidimensional Inventory of Black Identity or MIBI; Sellers et al. 1998)—as a function of Black majority versus minority contexts.

Conducting an inquiry that focuses on affective aspects of Black identity is worthwhile because it has implications for well-being. Lower levels of private regard have been associated with elevated anxiety and depressive symptoms, especially after encounters with racism (e.g., Bynum et al. 2008), whereas higher levels of public regard have been linked to increased discrimination-based distress (e.g., Sellers and Shelton 2003), especially for Black individuals in ecological contexts in which they constitute a minority (Hurd et al. 2013). Hurd et al. (2013) argued that in a Black minority context, possessing higher levels of public regard clashes with immediate and frequent messaging that one’s group is socially devalued and thus requires more cognitive resources and emotion regulation (also see Sellers and Shelton 2003). On the other hand, in a Black majority context, heightened public regard is beneficial to well-being because it is more readily integrated with one’s everyday experiences. Therefore, in a Black minority (but not majority) context, even if an individual feels temporarily fortified by experiencing an increased public regard from baseline, they may become more susceptible to detrimental outcomes in the long term.

The current experimental paradigm consisted of randomly assigning Black students at San Francisco State University (SF State), who were enrolled in either Africana Studies (Black majority ecological context; henceforth referred to as ‘Black majority’) or Psychology (Black minority ecological context; henceforth referred to as ‘Black minority’), to a threat or no-threat/control condition. In threat, students were led to believe that they would take a puzzle task that was diagnostic of intellectual abilities (a standard manipulation, see Brown and Day 2006; Steele and Aronson 1995). In no-threat, students similarly expected to take the same puzzle task, but this time the task was introduced as ‘culture fair,’ meaning that ‘... men and women from different racial/ethnic groups have performed similarly on this task in the past’ (see Aronson et al. 1999). In all four conditions, students completed the private and public regard measures at baseline, and following the threat/no-threat manipulation.

We chose to compare Psychology to Africana Studies students at SF State, because these students have similar demographics<sup>1</sup> and are housed in the same building: The Ethnic Studies and Psychology Building. SF State is a predominantly non-Black institution in which Black students comprise only 5.4% of the student population (retrieved from, <https://air.sfsu.edu/ir/student/ethnicity>, 2. 26. 2017) and in which Black students make up 70% of Africana Studies majors but only 3.9% of Psychology majors (retrieved from, <https://air.sfsu.edu/ir/enrollment>, 1. 25. 2017). The percentage of Black instructors across these

---

<sup>1</sup>Black students enrolled in Psychology and Africana studies at SF State were comparable on several factors such as gender (78.5% female and 65.5% female, respectively), modal age range (18–24 in both), enrollment status (89.2 and 86.2% full time, respectively), and regional origin (100% from CA in both) (retrieved from, [http://air.sfsu.edu/enrollment\\_reports](http://air.sfsu.edu/enrollment_reports), 8. 8. 2017).

majors is similar to the students': 6 out of 57, or 10.5% in Psychology and 15 out of 18, or 83.3% in Africana Studies.

We predicted that stereotype threat would have a differential effect on private and public regard as a function of Black minority/majority ecological contexts. In Psychology, a major in which Black students constitute a minority, students under threat were expected to experience a 'double jeopardy' effect—a concurrent decrease in private regard and an increase in public regard from baseline. In contrast, in Africana Studies, a major in which Black students constitute an ecological majority, students under threat were expected to show intact levels of private and public regard under threat. We unpack these predictions, next.

In a Black minority context (herein, Psychology), it is reasonable to predict that under threat, the concern with maintaining positive social perceptions of Black people would increase public regard—a collectivistic 'I am us' mindset (see Cohen and Garcia 2005)—and simultaneously elicit negative feelings about being Black (i.e., decreased private regard) for fear of failing to represent one's group well [i.e., a documented worry of being a bad ambassador to one's group (Shapiro 2011)]. This prediction is not obvious however. Steele and Aronson (1995) demonstrated that Black participants under threat disavowed preferences for cultural activities connoted with African-American imagery (jazz, hip-hop, and basketball). Steele et al. (2002) interpreted these findings as 'showing a distinct desire, we reasoned, not to be seen through the lens of a racial stereotype' (p. 384). Thus, if stereotype threat causes an overall psychological distancing from one's race, then both private and public regard levels should decrease. An empirical investigation of this issue is therefore warranted.

In a Black majority context (herein, Africana Studies), one would expect students under threat to experience intact levels of private and public regard. This prediction is derived from research on the buffering effects of Black majority ecological contexts—being in the numerical majority (e.g., Inzlicht and Ben-Zeev 2000; Ben-Zeev and Kirtman 2012) as well as being immersed in programs that employ culturally relevant pedagogy (e.g., Ladson-Billings 1995; Davis et al. 2006), such as Africana Studies, on Black students' identity and engagement (Dee and Penner 2016; Hurd et al. 2013). However, the prediction that students in Africana Studies would be more resilient to stereotype threat effects is also not obvious. Africana Studies programs tend to promote as well as to attract individuals with higher levels of regard, which in turn have been associated with greater susceptibility to stereotype threat effects (Ho and Sidanius 2010). Thus, it is possible that students from Africana Studies would be just as, or even more, affected by stereotype threat than would Psychology counterparts. An empirical investigation of this prediction is therefore merited as well.

Evidence that Africana Studies (versus Psychology) students would show protected levels of private and public regard under stereotype threat would corroborate McGee and Martin's (2011) assertion that the effects of this phenomenon are not deterministic. It would thus set the stage for conducting research on how to best import and to adapt educational practices and cultural norms from Africana Studies to inform curricular and policy reforms across departments and institutions in which Black students constitute a minority.

## Method

### Participants

Seventy-one self-identified African-American and Black undergraduate students (55 females; 16 males) from Psychology ( $N=40$ ,  $M_{age}=22.37$ ;  $SE_{age}=.69$ ) and Africana Studies ( $N=31$ ,  $M_{age}=22.23$ ;  $SE_{age}=.77$ ) at SF State volunteered to participate for extra course credit. The breakdown of participants per condition was as follows: threat [Psychology ( $N=21$ ); Africana Studies ( $N=15$ )] and no-threat/control [Psychology ( $N=19$ ); Africana Studies ( $N=16$ )].

### Materials

**Private and Public Regard**—Both scales were taken from the MIBI (Sellers et al. 1998). Private regard items consisted of: ‘I Feel good about Black people,’ ‘I am Happy that I am Black,’ ‘I feel that Blacks have made major accomplishments,’ ‘I often regret that I am Black’ (reversed coded), ‘I am proud to be Black,’ and ‘I feel that the Black Community has made valuable contributions to this society.’ Public regard items consisted of: ‘Overall, Blacks are considered good by others,’ ‘In general, others respect Black people,’ ‘Most people consider Blacks, on average, to be more ineffective than other racial groups’ (reversed coded), ‘Blacks are not respected by the broader society’ (reversed coded), ‘In general, other groups view Blacks in a positive manner,’ and ‘Society views Black people as an asset.’ All items were measured on a 7-point Likert-type scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The Cronbach alphas for participants’ pre-test responses were  $\alpha = .75$  for private regard and  $\alpha = .79$  for public regard.

### Procedure

Black students enrolled in Africana Studies and Psychology were randomly assigned to either a threat or to a no-threat/control condition. The first 12 participants were met in a laboratory by a Black female experimenter and completed the study on a laboratory computer, whereas the other 59 participants completed the study remotely and online via Qualtrics.<sup>2</sup> In all conditions, participants were asked to complete the private and public regard subsections of the MIBI at baseline (Time 1) and then again after undergoing the experimental manipulation (Time 2). Participants in the threat condition were led to believe that they would be taking a ‘puzzle’ task that would be indicative of intellectual abilities (see Brown and Day 2006): ‘You will now be asked to complete a puzzle-solving task. This task has been designed to be an accurate measure of your intellectual abilities, such that your score on this task predicts your success across a wide range of areas. You can expect this task to be challenging—many of the puzzle task items are difficult.’ Participants in the no-threat/control condition were similarly introduced to the task as difficult: ‘You will now be asked to complete a puzzle-solving task. You can expect this task to be challenging—many of the puzzle task items are difficult.’ However, they were informed that: ‘...men and women from different racial/ethnic groups have performed similarly on this task in the past.’

<sup>2</sup>The logistics of conducting a laboratory study at a commuter university in which most students hold at least one job proved prohibitive. We thus shifted to an online format. There were no statistically significant differences between the first 12 participants and the rest, all  $p$ s > .12.

After completing the private and public regard measures, participants were given a demographics questionnaire.

## Results and Discussion

We conducted a  $2 \times 2 \times 2$  mixed-factorial ANOVA, in which the between-subject variables were stereotype threat (threat vs. no-threat/control), and minority/majority ecological context (Psychology vs. Africana Studies), and the within-subject variables were private and public regard difference scores (Time 2 – Time 1). As predicted, there was a significant interaction effect,  $F(1, 67) = 8.25, p < .01, \eta_p^2 = .11$ . As can be gleaned from Fig. 1,

Psychology students under threat were the only group that showed a simultaneous decrease in private regard and increase in public regard,  $r = -.485, p = .026$ . This ‘double jeopardy’ effect is of note, because it might render Black individuals under threat, who are in the numerical minority, more vulnerable to depression, anxiety, and discrimination-based distress in the long term (see Bynum et al. 2008; Sellers et al. 2006; Sellers and Shelton 2003; Rowley et al. 1998). For Time 1 and Time 2 descriptive data, see Table 1.

### Stereotype Threat Effects on Black Students’ Private Regard as a Function of Ecological Majority Versus Minority Context

As predicted, Psychology students under threat ( $M = -1.81, SE = .72$ ) were the only group to exhibit a significant decrease in private regard (Time 2 – Time 1) from their own baseline,  $t(20) = -2.53, p = .02, d = -1.13$  as well as in comparison with the mean private regard difference scores of both Africana Studies students under threat ( $M = .27, SE = .53$ ),  $t(35) = -3.02, p < .01, d = -1.02$ , and to Psychology counterparts in the control condition ( $M = -.05, SE = .47$ ),  $t(39) = -2.73, p < .01, d = -.87$ . Also as predicted, Africana Studies students under threat and their control counterparts ( $M = -.19, SE = .51$ ) showed similar levels of private regard difference scores,  $t(30) = .62, p = .54$ . Taken together, these findings show that stereotype threat has a differential effect on private regard as a function of Black minority/majority context. In Psychology, students experienced a decreased private regard under threat, whereas in Africana Studies, students’ private regard remained intact under threat.

### Stereotype Threat Effects on Black Students’ Public Regard as a Function of Ecological Majority Versus Minority Context

As predicted, Psychology students under threat ( $M = 3.1, SE = .94$ ) exhibited a significant increase in public regard from baseline,  $t(20) = 3.31, p < .01, d = 1.28$ , whereas Africana Studies students in the threat condition showed intact levels of public regard ( $M = -.80, SE = 1.15$ ),  $t(14) = -.70, p = .50$ . Unexpectedly, however, Africana Studies students in the control condition exhibited a marginally significant increase in public regard from baseline ( $M = 2.00, SE = 1.01$ ) as compared to Africana studies counterparts in threat ( $M = -.80, SE = 1.05$ ),  $t(30) = -1.92, p = .06, d = -.67$ , but a similar increase in public regard compared to psychology counterparts in the control condition ( $M = 1.26, SE = .93$ ),  $t(34) = -.54, p = .59$ . Moreover, this increased public regard in Africana Studies controls was significantly different from baseline,  $t(15) = 2.13, p = .05, d = 1.10$ .

One possible explanation for these findings is that Africana Studies students perceived the control condition—a puzzle task introduced as ‘culture fair’ such that people of different racial and ethnic backgrounds performed similarly on this test in the past (see Aronson et al. 1999)—as an affirmation of what students learn in Africana Studies, that is, that there are no innate racial differences in intellectual abilities (i.e., a ‘signaling safety’ manipulation, see Murphy et al. 2007). Alternatively, it is possible that because Africana Studies promotes awareness of ‘color-blindness,’ a racial microaggression (see Purdie-Vaughns et al. 2008), a test introduced as ‘culture fair’ might have been perceived as inauthentic and as a failure to acknowledge the realities of racial/ethnic inequalities (Sue et al. 2007). In the latter case, heightened public regard might have served as a coping mechanism, a form of reflected appraisal (Wallace and Tice 2012). In any case, elevated public regard in a Black majority context would likely not be a cause for concern, as discussed in detail previously (Hurd et al. 2013), because elevated public regard in majority contexts is more easily integrated with daily experiences, given the greater amount of positive and relatable examples of successful role models as well as the decreased exposure to ambiguous or explicit racist interactions.

Notably, the fact that Africana Studies students showed intact (versus elevated) public regard levels, following the standard manipulation of threat, offers support for the notion that Africana Studies students might perceive a test of ‘intellectual abilities’ as a welcome challenge, without becoming overly concerned with what others might think of Black individuals.

### **Scores on the Puzzle Task: Ruling out Effects of Intellectual Performance on Regard Differences from Baseline**

The puzzle task consisted of items from the Advanced Ravens Progressive Matrices (APM); a standardized test that has been commonly used to measure abstract thinking (see Brown and Day 2006). A  $2 \times 2$  factorial ANOVA, in which the between-subject variables were stereotype threat (threat vs. control) and minority/majority ecological context (Psychology vs. Africana Studies), revealed no significant effects on the APM,  $F(1, 67) = 1.41, p = .24$ . Given the blatant priming of threat in the current study (i.e., priming racial identity in addition to employing a traditional threat manipulation), this finding most likely indicated a ‘contrast effect’ (see Wheeler and Petty 2001)—a performance boost under threat that enabled all groups to perform similarly and to the best of their abilities. In fact, had there been threat effects on the APM, the interpretation of threat on private and public regard would have been rendered un-interpretable because scores on the test would have been confounded with condition. We elaborate on this finding further in the general discussion section below.

### **Private and Public Regard Baseline Differences Between Africana Studies and Psychology Students**

Africana Studies students exhibited higher private regard scores at baseline ( $M = 40.19, SE = .53$ ) as compared to Psychology students ( $M = 38.25, SE = .57$ ),  $t(69) = -2.43, p < .02, d = -.59$ . These groups did not differ on public regard,  $t(69) = .81, p = .42$ . The difference in private regard could have resulted from a self-selection bias, the Africana Studies curriculum, or both. In any case, according to the literature (e.g., Ho and Sidanius 2010),

higher levels of private regard at baseline should have made the Africana Studies students more, rather than less, susceptible to stereotype threat effects. The current findings are therefore non-obvious and optimistic.

## General Discussion

The present study provides evidence that stereotype threat impacts affective aspects of Black identity as a function of minority/majority ecological context. In Psychology, a major in which Black students constituted an ecological minority, students under threat experienced a simultaneous decrease and increase in private and public regard, respectively, compared to all other groups. This ‘double jeopardy’ effect is noteworthy given that in Black minority contexts, lower levels of private regard tend to be associated with elevated levels of anxiety and depression, especially as a response to experiences of racism (e.g., Bynum et al. 2008), while higher levels of public regard are predictive of increased susceptibility to discrimination-based distress (e.g., Sellers and Shelton 2003). In contrast, Black students in Africana Studies, a major in which Black students constituted an ecological majority, showed intact levels of private and public regard under threat. Taken together, these findings imply that stereotype threat effects are not deterministic (McGee and Martin 2011) and that programs such as Africana Studies, within predominantly non-Black institutions, can have beneficial effects on Black students’ identity and, by extension, on their well-being (Reddy 2011).

The current study was intended to be an initial foray into understanding the effects of stereotype threat on racial identity as a function of Black majority versus minority contexts. It has several limitations that we hope will spur future investigations and attempts at replication and extension. First, we utilized a quasi-experimental design, which is powerful ecologically but cannot account for self-selection variables. It would be impossible, of course, to randomly assign students to enroll in either Africana Studies or Psychology. To control for this issue best we could, we recruited participants from SF State, a University in which the Africana Studies program and Psychology Department are housed in the same building—the Ethnic Studies and Psychology Building—and tend to attract students with as similar demographics as possible (for specifics, see footnote 1).

Second, the sample size was modest. At SF State, it is extremely difficult to recruit Black students as participants for social science studies given their low base rate as well as a general (and understandable) mistrust toward experimentation on Black populations (see Huang and Coker 2010). To address this limitation, we used a mixed model ANOVA with private and public regard difference scores as repeated-measure variables. Repeated-measure designs tend to have more statistical power because estimates of error variation tend to be smaller. In addition, statistical power is affected not only by sample size but also by the size of the treatment effect. We thus conducted a power analysis on the interaction effect [for the  $2 \times 2 \times 2$  mixed-factorial ANOVA, in which the between-subject variables were stereotype threat (threat vs. control), and minority/majority ecological context (Psychology vs. Africana Studies), and the within-subject variables were private and public regard difference scores

(Time 2 – Time 1)] using G\*Power (Faul et al. 2007). The probability of having obtained a true interaction effect ( $p < .01$ ,  $\eta_p^2 = .11$ ) versus a type I error was determined to be .99.

Finally, the groups did not differ in terms of their performance on the puzzle task, which at first glance might seem unexpected, given a stereotype threat manipulation. Stereotype threat, however, does not always manifest as a difference in intellectual performance. When a stereotype threat prime is blatant (versus subtle), it can lead to what is known as a contrast effect—an unhampered performance that reflects one's true abilities (see Wheeler and Petty 2001). It is possible for Black persons, and other individuals who bear stigma, to perform well on intellectual tasks under threat—but to incur other costs to well-being, such as lowered self-esteem—as a result of having to contend with stereotype-based concerns [e.g., worries about being a poor ambassador to one's group (Shapiro 2011; Steele 1997)]. Given the blatant priming of threat in the current study (i.e., priming racial identity in addition to a traditional threat manipulation), we expected to find a contrast effect such that all groups would perform similarly and to the best of their abilities. Had this not been the case, the interpretation of threat effects on private and public regard would have been rendered uninterpretable (i.e., scores on the test would have been confounded with condition).

The reason why Psychology students felt less positively about being Black under threat might have been a form of 'losing the battle, but winning the war' (see Nussbaum and Steele 2007). That is, in an effort to protect the group's image (i.e., elevated public regard), students might have experienced negative affect about being Black (i.e., decreased private regard) for fear of reflecting poorly on their racial group. Regardless of the exact reason, a simultaneous decrease in private regard and increase in public regard are a cause of concern about the psychological costs that Black individuals suffer in minority ecological contexts that are intellectually threatening.

Affiliation with Africana Studies might provide a buffer against threat effects on racial identity, given a majority ecological context that includes but also transcends numerical representation in and of itself. Africana Studies programs across the nation place an emphasis on providing positive racial experiences and role models, and on a curriculum that enables Black students to see themselves reflected in what they are learning, by highlighting African and African-American history, culture, and contributions to critical fields of knowledge (Karenga 2010). Courses include Black experiences, intellectual heritage, struggle, and contributions to humanity in general (Karenga 2010). Affirmation of Black humanity and empowerment are central to the curriculum, and racial stereotypes are openly deconstructed. Finally, Black students in Africana Studies courses are more often exposed to same race professors. Black students tend to find Black professors to be less likely to treat them stereotypically, more likely to hold positive beliefs about their academic ability, be understanding, serve as role models, and to hold high standards (Guiffrida 2005; Tuitt 2012). Black students' experiences with Black professors may also equip students with a sense of support and institutional attachment that can protect their racial identity.

At SF State, Africana Studies is part of the College of Ethnic Studies and has a unique history as well as a paying-it-forward mission. The first department of Black Studies at SF State was established in 1968 via the efforts of the Black student leadership, the Black

community at large, and allies. Africana Studies continues the legacy from the 1968 struggle, enabling students to adopt both intellectual skills as well as to use their education to give back to Black communities, by cultivating knowledge to improve and to transform conditions for these communities as well as for society at large. This kind of education has been shown to promote a connection between community and classroom (T'Shaka 2012); a factor that could also be implicated in resilience to stereotype threat effects on Black identity, at SF State and at other institutions, and merits future investigation.

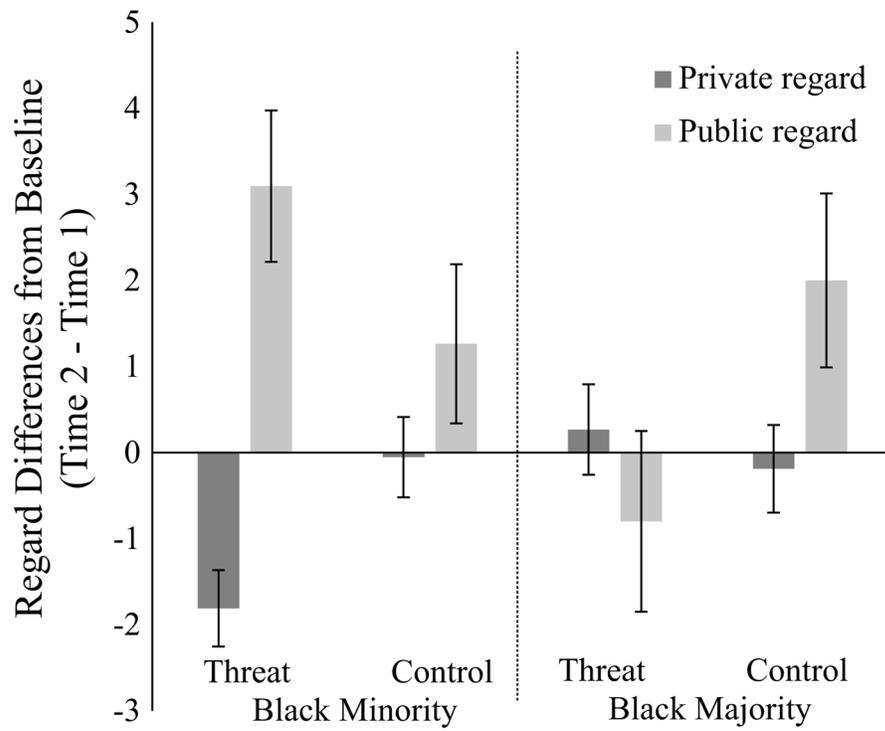
The plethora of empirically validated interventions for stereotype threat (for a review, see Cohen et al. 2012) have been useful in shedding light on how to protect stigmatized individuals' intellectual performance but have not focused on how to help Black individuals (or other populations of color) to maintain an integrated (versus a bifurcated) racial identity in minority ecological contexts. A recently published intervention, Speaking Truth to Empower (STEP) (Ben-Zeev et al. 2017), takes on this goal. STEP embraces a 'knowledge as power' approach by: (a) providing Black and Latino/a students in science, technology, engineering, and mathematics with a tutorial on stereotype threat and (b) encouraging Black and Latino/a students to use their lived experiences for generating 'be-prepared' coping strategies. Ben-Zeev et al. (2017) provided evidence that STEP's two-pronged approach—explicating the effects of structural 'isms' while harnessing underrepresented students' existing assets—helped to protect Black and Latino/a students' abstract reasoning and class grades (adjusted for grade point average [GPA]) as well as decreased their worries about confirming ethnic/racial stereotypes. By 'speaking truth,' STEP shows promise in promoting Black students' resilience to stereotype-based evaluative concerns, a core tenet that aligns with Africana Studies pedagogies. Via STEP and/or other interventions, it behooves educational institutions to foster reform that enables Black students to perform to their true potential without sacrificing aspects of their racial identity; to 'Say It Loud – I'm Black and I'm Proud.'

## References

- Aronson J, Lustina MJ, Good C, Keough K, Steele CM, Brown J. When white men can't do math: Necessary and sufficient factors in stereotype threat. *Journal of Experimental Social Psychology*. 1999; 35:29–46.
- Astin, HS., Sax, L. Developing scientific talent in undergraduate women. In: Davis, CS.Ginorio, A.Hollenshead, C.Lazarus, B., Rayman, P., editors. *The equity equation: Fostering the advancement of women in the sciences, mathematics, and engineering*. San Francisco, CA: Josse-Bass; 1996.
- Ben-Zeev, A., Kirtman, N. Stereotype threat beyond the laboratory: Do single sex colleges signal a safety in the air?. In: Hunter, BO., Romero, TJ., editors. *Psychology of threat*. Hauppauge, NY: Nova Science; 2012. p. 1-20.
- Ben-Zeev A, Paluy Y, Milless K, Goldstein E, Wallace L, Marquez-Magana L, et al. 'Speaking truth' protects under-represented minorities' intellectual performance and safety in STEM. *Education Sciences*. 2017; 65:1–12.
- Bronfenbrenner, U. *The ecology of human development: Experiments by design and nature*. Cambridge, MA: Harvard University Press; 1979.
- Brown RP, Day EA. The difference isn't Black and white: Stereotype threat and the race gap on Raven's Advanced Progressive Matrices. *Journal of Applied Psychology*. 2006; 91:979–985. [PubMed: 16834521]

- Bynum MS, Best C, Barnes SL, Burton ET. Racism and internalizing symptoms among African American late adolescent males: Investigating the role of private regard. *Journal of African American Studies*. 2008; 12:142–155.
- Chavous TM, Bernat DH, Schmeelk-Cone K, Caldwell CH, Kohn-Wood L, Zimmerman MA. Racial identity and academic attainment among African American adolescents. *Child Development*. 2003; 74:1076–1090. [PubMed: 12938705]
- Cohen GL, Garcia J. “I Am Us”: negative stereotypes as collective threats. *Journal of Personality and Social Psychology*. 2005; 89:566–582. [PubMed: 16287419]
- Cohen, G., Purdie-Vaughns, V., Garcia, J. An identity threat perspective on intervention. In: Inzlicht, M., Schmader, T., editors. *Stereotype threat; Theory, process, and application*. New York: Oxford University Press; 2012. p. 280-296.
- Dasgupta N, Asgari S. Seeing is believing: Exposure to counterstereotypic women leaders and its effect on the malleability of automatic gender stereotyping. *Journal of Experimental Social Psychology*. 2004; 40:642–658.
- Davis C, Aronson J, Salinas M. Shades of threat: Racial identity as a moderator of stereotype threat. *Journal of Black Psychology*. 2006; 32:399–417.
- Dee TS, Penner EK. The causal effect of cultural relevance: Evidence from an ethnic Studies curriculum. *American Educational Research Journal*. 2016; 20:1–40.
- Faul F, Erdfelder E, Lang AG, Buchner A. G\*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*. 2007; 39:175–191. [PubMed: 17695343]
- Guiffrida D. Othermothering as a framework for understanding African American students’ definitions of student-centered faculty. *Journal of Higher Education*. 2005; 76:701–723.
- Ho AK, Sidanius J. Preserving positive identities: Public and private regard for one’s ingroup and susceptibility to stereotype threat. *Group Process and Intergroup Relations*. 2010; 13:55–67.
- Huang H, Coker AD. Examining issues affecting African American participation in research studies. *Journal of Black Studies*. 2010; 40:619–636.
- Hurd NM, Sellers RM, Cogburn CD, Butler-Barnes ST, Zimmerman MA. Racial identity and depressive symptoms among Black emerging adults: The Moderating effects of neighborhood racial composition. *Developmental Psychology*. 2013; 49:938–950. [PubMed: 22709129]
- Inzlicht M, Ben-Zeev A. A threatening intellectual environment: Why females are susceptible to experiencing problem-solving deficits in the presence of males. *Psychological Science*. 2000; 11:365–371. [PubMed: 11228906]
- Inzlicht, M., Good, C. How environments threaten academic performance, self knowledge, and sense of belonging. In: Levin, S., van Laar, C., editors. *Stigma and group inequality: social psychological approaches*. Mahwah, NJ: Lawrence Erlbaum Associates; 2006. p. 129-150.
- Jamieson JP, Mendes WB, Blackstock E, Schmader T. Turning the knots in your stomach into bows: Reappraising arousal improves performance on the GRE. *Journal of Experimental Social Psychology*. 2010; 46:208–212. [PubMed: 20161454]
- Karenga, M. *Introduction to Black studies*. Los Angeles, CA: University of Sankore Pres; 2010.
- Ladson-Billings G. But that’s just good teaching! The case for culturally relevant pedagogy. *Theory into Practice*. 1995; 34:159–165.
- McGee EO, Martin DB. “You would not believe what I have to go through to prove my intellectual value!”: Stereotype management among academically successful Black mathematics and engineering students. *American Education Research Journal*. 2011; 48:1347–1389.
- Murphy MC, Steele CM, Gross JJ. Signaling threat: how situational cues affect women in math, science, and engineering settings. *Psychological Science*. 2007; 10:879–885.
- Nussbaum A, Steele CM. Situational disengagement and persistence in the face of adversity. *Journal of Experimental Social Psychology*. 2007; 43:127–134.
- Oyserman, D., Brickman, D., Rhodes, M. Racial-ethnic identity: Content and consequences for African American, Latino and Latina youth. In: Fuligni, A., editor. *Contesting stereotypes and creating identities: Social categories, social identities and educational participation*. New York, NY: Russell Sage; 2007. p. 91-114.

- Purdie-Vaughns V, Steele CM, Davies PG, Dittmann R, Crosby JR. Social identity contingencies: How diversity cues signal threat or safety for African American in mainstream institutions. *Journal of Personality and Social Psychology*. 2008; 94:615–630. [PubMed: 18361675]
- Reddy, KS. Benefits of belonging: Dynamic group identity as a protective resource against psychological threat. Columbia University; 2011. <http://academiccommons.columbia.edu/catalog/ac:147582> [Accessed 1.24.17]
- Rowley SJ, Sellers RM, Chavous TM, Smith MA. The relationship between racial identity and self-esteem in African American college and high school students. *Journal of Personality and Social Psychology*. 1998; 74:715–724. [PubMed: 9523414]
- San Francisco State University Academic Institutional Research. Term Enrollment. 2015a. Retrieved from <https://air.sfsu.edu/ir/enrollment>
- San Francisco State University Academic Institutional Research. Ethnic and Gender Data. 2015b. Retrieved from <https://air.sfsu.edu/ir/student/ethnicity>
- Schmader T, Johns M, Forbes C. An integrated process model of stereotype threat effects on performance. *Psychological Review*. 2008; 115:336–356. [PubMed: 18426293]
- Sekaquaptewa D, Thompson M. Solo status, stereotype threat, and performance expectancies: Their effects on women's performance. *Journal of Experimental Social Psychology*. 2003; 39:68–74.
- Sellers RM, Copeland-Linder N, Martin PP, Lewis RL. Racial identity matters: The relationship between racial discrimination and psychological functioning in African American Adolescents. *Journal of research on Adolescence*. 2006; 16:187–216.
- Sellers RM, Shelton JN. The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology*. 2003; 84:1079–1092. [PubMed: 12757150]
- Sellers RM, Smith MA, Shelton JN, Rowley SAJ, Chavous TM. Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review*. 1998; 2:18–39. [PubMed: 15647149]
- Shapiro JR. Different groups, different threats: A multi-threat approach to the experience of stereotype threats. *Personality and Social Psychology Bulletin*. 2011; 37:464–480. [PubMed: 21441217]
- Steele CM. A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist*. 1997; 52:613–629. [PubMed: 9174398]
- Steele, CM. *Whistling Vivaldi and other clues to how stereotypes affect us*. New York, NY: W.W. Norton; 2010.
- Steele CM, Aronson J. Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*. 1995; 69:797–811. [PubMed: 7473032]
- Steele CM, Spencer SJ, Aronson J. Contending with group image: The psychology of stereotype and social identity threat. *Advances in Experimental Social Psychology*. 2002; 34:379–440.
- Sue DW, Capodilupo CM, Torino GC, Bucceri JM, Holder A, Nadal KL, et al. Racial microaggressions in everyday life: implications for clinical practice. *American Psychologist*. 2007; 62:271–286. [PubMed: 17516773]
- T'Shaka O. Africana studies department history: San Francisco State University. *The Journal of Pan African Studies*. 2012; 5:13–32.
- Taylor E, Antony JS. Stereotype threat reduction and wise schooling: Towards the successful socialization of African American doctoral students in education. *Journal of Negro Education*. 2000; 69:184–198.
- Tidball, ME., Smith, DG., Tidball, CS., Wolf-Wendel, LE. *Taking women seriously: Lessons and legacies for educating the majority*. American Council on Education/Oryx Press Series on Higher Education. Phoenix, AZ: Oryx Press; 1999.
- Tuitt F. Black like me. *Journal of Black Studies*. 2012; 43:186–206.
- Wallace, HM., Tice, DM. Reflected appraisal through a 21st-century looking glass. In: Leary, MR., Tangney, JP., editors. *Handbook of self and identity*. Vol. 2. New York, NY: Guilford; 2012. p. 124-140.
- Wheeler CS, Petty RE. The effect of stereotype activation on behavior: A review of possible mechanisms. *Psychological Bulletin*. 2001; 127:797–826. [PubMed: 11726072]



**Fig. 1.** Mean private and public regard difference scores (Time 2 - Time 1), analyzed as a function of stereotype threat (threat vs. no-threat/control) and condition [Ecological Context: Africana Studies (Black majority) vs. Psychology (Black minority)]. The Y-axis represents an increase or decrease from baseline. Error bars represent  $\pm 1$  standard error

Mean private and public regard scores at Time 1 (T1) and Time 2 (T2), analyzed as a function of stereotype threat (threat vs. no-threat/control) and condition [Ecological Context: Africana Studies (Black majority) vs. Psychology (Black minority)]

**Table 1**

Regard sub-scales	Black minority				Black majority			
	Threat		Control		Threat		Control	
	M (SE)	M (SE)	M (SE)	M (SE)	M (SE)	M (SE)	M (SE)	
Private regard	T1	38.81 (.58)	37.63 (1.02)	39.53 (.89)	40.81 (.59)			
	T2	37 (.95)	37.58 (.99)	39.8 (.91)	40.63 (.68)			
Public regard	T1	15.67 (1.24)	18.42 (1.5)	16 (1.46)	15.63 (1.56)			
	T2	18.76 (1.17)	19.68 (1.83)	15.2 (1.58)	17.63 (1.56)			
N		21	19	15	16			