



Published in final edited form as:

Ethn Racial Stud. 2014 April 1; 37(3): 557–575. doi:10.1080/01419870.2013.786110.

Mediators of Stereotype Threat among Black College Students

Douglas S. Massey [Professor] and

Sociology and Public Affairs at Princeton University. ADDRESS: Office of Population Research, Wallace Hall, Princeton University, Princeton, NJ 08540 USA. dmassey@princeton.edu

Jayanti Owens [Doctoral Candidate]

Sociology at Princeton University. ADDRESS: Office of Population Research, Wallace Hall, Princeton University, Princeton, NJ 08540 USA. jowens@princeton.edu

Abstract

We hypothesize that the manner in which stereotype threat affects college grade achievement is mediated by institutional context as well as individual characteristics. Drawing on a sample of black students from the National Longitudinal Survey of Freshmen we find weak and inconsistent evidence that institutional characteristics influence the operation of stereotype threat. We find more consistent evidence to indicate that the effect of stereotype threat is conditioned by individual factors such as skin color, multiracial origins, and an integrated upbringing. Most of the effect on grade achievement occurs through the internalization pathway, in which the internalization of negative stereotypes leads to disinvestment manifested by a reduction in academic effort. The reduction in work effort, in turn, lowers grades. We also find evidence that immigrant origin confers protection from the negative effects of stereotype threat through both internalization and externalization mechanisms, though the ultimate effect of grade achievement is rather small.

Keywords

Stereotype Threat; African Americans; Higher Education; Academic Underachievement; Selective Colleges; Race

Stereotype threat is a widely recognized social-psychological phenomenon and is well established in both the sociological and psychological literatures. The potential for stereotype threat arises whenever: (1) a negative stereotype exists about a social group in society; (2) members of that social group are aware of the stereotype; and (3) group members are required to perform in a domain where the stereotype is relevant. Originally developed by Claude Steele (Steele 1988a; Steele 1988b), the stereotype threat model has been validated in many laboratory experiments (Major and O'Brien 2005; Inzlicht and Schmader 2012). In the laboratory, stereotype threat is created by priming a negative stereotype for members of an experimental social group to whom the stereotype applies while offering a countervailing prime, a neutral prime, or no prime to a control group of otherwise comparable individuals. With the negative stereotype threat primed and in mind, members of the experimental group perform systematically worse with respect to the stereotyped outcome than members of the control group.

Steele originally developed this model to explain black under-performance in educational settings. The stereotype of black intellectual inferiority is widely known in American society (see Herrnstein and Murray 1996; Tucker 2002) and deeply embedded in American social cognition (Bobo and Johnson 2000; Sniderman and Piazza 1993; Schuman et al. 1998). African American students are keenly aware of the stereotype, of course, and whenever they are called upon to perform academically they put themselves at risk of confirming this very negative stereotype about themselves and their group.

The effects of stereotype threat are not confined to African Americans, of course. Indeed, stereotype threat can undermine the performance of any stigmatized group whose members are negatively portrayed with respect to a domain of ability or performance (Lovaglia et al. 1998). Members of stigmatized groups underperform because they fear of living up to negative group stereotypes about themselves and their group. If this fear is strong enough, it interferes with performance and leads to “disidentification,” a psychological defense mechanism in which the domain where the threat occurs is dropped as a basis for self-esteem (Steele and Aronson 1995; Aronson et al 1998).

Although the concept of stereotype threat was originally developed by psychologists and validated in laboratory experiments, more recently others have supported the hypothesis using field experiments (Stricker and Ward 2004), observational studies (Cullen, Hardison, and Sackett 2004), and survey-based statistical analyses (Massey and Fischer 2005; Owens and Massey 2011). With respect to academic under-performance by minority students, survey researchers have been notably successful not only in confirming the existence of stereotype threat outside the laboratory (Charles et al. 2009; Owens and Massey 2011), but in demonstrating its potency as an explanation relative to other hypothesized social and psychological mechanisms (Massey and Probasco 2010).

Survey researchers have elaborated two distinct pathways by which stereotype threat influences minority student performance (Massey and Fischer 2005). The basic model is summarized in Figure 1, which is taken from Owens and Massey (2011). The *internalization pathway* occurs when minority students themselves subscribe at some level to negative stereotypes about their group, in effect internalizing the invidious beliefs to create a potentially serious threat to self-esteem. To reduce the threat, such students *disidentify* with academic achievement as a domain of self-worth by *reducing their academic work effort*. In this case, if they perform badly in a class or on an exam they do not confirm the negative stereotype to themselves because they know they did not put in their best effort. They *could* have done better if they had tried harder.

The *externalization pathway* occurs when minority students expect *other* social actors, in particular white students and teachers, to hold negative stereotypes about their group and to make malicious judgments based on these prejudices. This expectation creates anxiety about performing badly before an audience of invidious judges (e.g. white peers and professors), yielding a psychological *performance burden* that undermines achievement. These two pathways have been found to operate independently to reduce grade performance among blacks and Latinos attending selective colleges and universities in the United States using

both standard structural equation estimates and latent variable models (Massey and Fischer 2005; Owens and Massey 2011).

In this paper we build on earlier work by assuming the validity of stereotype threat in survey settings and moving on to test whether the severity of the threat varies according to social context and personal characteristics. In the following section, we derive a series of hypotheses about how different institutional and individual factors might exacerbate or mitigate stereotype threat. We then describe the data and methods used to test these hypothesis and present results indicating that certain institutional settings and individual characteristics do indeed produce greater stereotype threat than others. We conclude with a consideration of the theoretical and practical implications of our research.

SOCIAL CONTEXT AND STEREOTYPE THREAT

Our overall hypothesis is that the severity of stereotype threat varies systematically with respect to characteristics of the academic institution that students attend and the personal traits they bring with them to college. In general, we expect those institutional and individual characteristics that heighten minority status, underscore negative group attributions, and accentuate the stakes of academic performance will produce greater internalization and externalization of negative stereotypes and thus greater disidentification and heavier performance burdens, which ultimately will lead to lower academic performance.

Among the institutional factors we consider are public versus private sector, school selectivity, emphasis on affirmative action, and black student representation on campus. In general, we expect private colleges and universities to be more exclusive and place a greater emphasis on scholarly credentials and academic performance, both before and after admission. Hence we hypothesize that the basic mechanisms of racial stereotype threat will operate more powerfully on the campuses of private than public institutions. We also consider the effect of institutional selectivity, arguing that more selective colleges and universities are more likely to highlight indicators of academic achievement such as course grades, exam outcomes, honors, and awards, thus focusing attention on scholarly performance to heighten the potential for stereotype threat. With respect to affirmative action, we hypothesize that institutions emphasizing minority inclusion may inadvertently stigmatize them as being less qualified than other students, especially if they are slotted into “special” or “remedial” programs on the basis of race, thus exacerbating stereotype threat (see Fischer and Massey 2007; Massey and Mooney 2007). Finally we consider group size, arguing that other things equal, a relatively large number of minority students on campus will reduce the visibility of any individual minority student, thus mitigating the potential for stereotype threat.

At the individual level we consider a student’s skin color, racial origins, immigrant background, parental education, and origination in a segregated versus integrated environment. To the extent that light-skinned and multiracial African Americans are less sure of their identity and confident in their blackness, they may be more susceptible to stereotype threat. Blacks of immigrant origin grew up in households headed by at least one

immigrant parent (and usually two), which means that parental socialization occurred primarily outside the racist environment of the United States, usually within a predominantly black society in Africa or the Caribbean. Prior work indicates that immigrant origin students are less aware of and less affected by stereotyping and discrimination in American society and are less likely to have internalized feelings of inferiority and victimization from their parents (Kasinitz 2002; Waters 1999; Deaux 2006), and hence are hypothesized to be less vulnerable to stereotype threat (Owens and Lynch 2012). An immigrant ideology of grit and effort also helps them respond positively to any prejudice and discrimination they encounter (Portes and Rumbaut 2006).

With respect to parental education, we hypothesize that first generation college students are more vulnerable to the predations of stereotype threat owing to a lack of familiarity with the college-related human, social, and cultural capital that is second nature to the children of parents who have gone to college. Finally, we argue that coming of age in a segregated school environment confers some protection on black students, who were not so conscious of their minority status and exposed to the judgments of white peers while growing up, thus yielding less susceptibility to stereotype threat. Indeed, Massey and Fischer (2005) found that minority students who had predominantly minority peer networks, attended minority schools, and lived in segregated neighborhoods experienced less stereotype internalization and externalization.

DATA AND METHODS

Our data come from the National Longitudinal Survey of Freshmen (NLSF), a stratified random sample of college students who entered 28 selective colleges and universities throughout the United States in the fall of 1999 (see Massey et al. 2003; Charles et al. 2009). Students were interviewed in-person during the fall of their freshman year and were re-interviewed by phone every spring from 2000 through 2003 to learn about their social and academic experiences in college. Here we draw upon data gathered in the baseline and first two follow-up surveys, which had respective response rates of 86%, 96%, and 90%. We selected black students for study because, as the nation's stigmatized minority of longest standing and greatest severity, they are likely to be most susceptible stereotype threat. Multiple imputation was used to deal with item non-response (which ranged between 0.5% and 5%) and conserve degrees of freedom, yielding a final sample of 918 black students.

The ultimate dependent variable in our analyses is academic performance, which we measure as the average GPA earned by students during the spring and fall of 2000—or the spring of their freshman year and the fall of their sophomore year. Following Owens and Massey (2011), we developed estimates of the theoretical constructs pertaining to stereotype threat shown in Figure 1 using multiple indicators, which are listed in Table 1. The Owens-Massey latent variable analyses firmly validated this measurement model and demonstrated its robustness under different configurations of the data set and different equation specifications..

We operationalize the internalization construct (INT) by taking the sum of three items that assess the degree to which respondents believe that members of their own group are lazy,

unintelligent, and give up easily ($\alpha=0.703$). Externalization (EXT) is indexed as the sum of four items assessing whether respondents think whites and Asians discriminate and the degree to which they think other instructors and students base academic evaluations on group stereotypes ($\alpha=0.680$). We measure academic effort (EFF) by combining three items: the average number of hours studied per seven-day week during the academic year), how important the respondent believes it is to try hard to learn the course material in college courses, and how much self-reported effort they put into their studies over the past year ($\alpha=0.630$). Finally, academic performance burden (APB) is assessed by adding together five items that ask respondents to report on the degree that instructors will think less of them if they have difficulty in class, their individual performance reflects positively or negatively on their group, their own apprehensions about appearing foolish or stupid before others, and the extent to which they believe not doing well academically will cause people to look down on others like them ($\alpha=0.763$).

Whereas Massey and Fischer (2005) and Owens and Massey (2011) included a large number of control variables in their final equations, here we will be dividing a limited sample of black students into categories based on institutional and individual characteristics, so we conserve degrees of freedom by including as controls just three variables that prior work has shown to be relevant in influencing academic performance in these data: cognitive skills as measured by SAT score, prior academic achievement as measured by high school GPA, and socioeconomic status as measured by the share of college costs borne by the student's family (Massey et al. 2003; Charles et al. 2009).

Means, standard deviations, and ranges for variables used in the analysis are summarized in Table 2. As can be seen, the average GPA lies on the border between a B and a C grade, with a value of 2.97 and a range extending from failing (0.43) to straight A's (4.0). With respect to the internalization pathway, the index of negative stereotype internalization displayed an average value of 6.59 on a 0–14 scale with a standard deviation of 6.59 whereas the index of academic effort averaged 17.73 on a 0–30 scale with a standard deviation of 4.83. In the externalization pathway, the index of stereotype externalization averaged 22.72 on a 0–34 scale with a standard deviation of 6.50 and the average performance burden stood at 30.95 on a 0–63 scale with a standard deviation of 12.53. Thus our core theoretical variables display ample variation. With respect to control variables, the range of SAT scores was 840 to 1600 with a mean of 1292; high school GPA ranged from 1.67 to 4.0 and averaged 3.71; and the proportion of college costs paid by family members ran the gamut from 0 to 1.0 with a mean of 0.357.

The institutional factors that we consider potentially important in mediating the potency of stereotype threat are sector, selectivity, affirmative action, and black student representation. As one might expect given a sample of elite colleges and universities, the institutions are weighted toward the private sector, with 68% of respondents at a private college or university and 32% at one of the "elite public" institutions (such as U.C. Berkeley or the University of Michigan). To capture institutional selectivity we divided the sample at the median institutional SAT score and defined those schools above this point as more selective and those below it as less selective. By this criterion, around 48% of respondents attended more selective institutions. Following Massey and Mooney (2007) we assessed an

institution's emphasis on affirmative action by taking the difference between the average SAT score for black and all students at each institution and then dividing the sample a the median value of this difference. In schools above the median, black SAT scores lie closer to the institutional average than in schools below the median, suggesting that other criteria (such as race) were given greater weight in the admission decision. According to this metric, around 47% of students attended a college or university where the emphasis on affirmative action was high. Finally, we assessed how the relative number of black students affected academic outcomes by dividing the 28 institutions into two categories above and below the median percentage of black students. By this measure, around 70% of the students in our sample attended a college or university with a relatively high black percentage.

The individual level mediators we considered are skin tone, parental birthplace, multiracial origins, parental education, and degree of school segregation experienced while growing up. Skin tone was measured using an interviewer-assigned scale of darkness that ranged from 0 (extremely light) to 10 (extremely dark) with a mean of 4.97 and a range from 0 to 10. To dichotomize the sample into relatively equal-sized groups for comparison, we divided students into segments above and below the average darkness level, yielding two categories that we simply labeled "light" and "dark." According to this classification, roughly half of all black students were classified as light skinned. Turning to parental birthplace, some 28% of the students reported a foreign born parent whereas 16% reported multiracial origins and 68% of the sample had at least one parent who was a college graduate. Students who attended schools that averaged more than 50% black while growing up were considered to have come from a segregated background, which was true of 12% of the students.

CONTEXTUAL EFFECTS ON STEREOTYPE THREAT

To assess the effect of institutional context on stereotype threat, we divided the sample into two groups with respect to sector, selectivity, commitment to affirmative action, and the relative number of black students. Using OLS models we then estimated equations associated with each of the pathways shown in Figure 1, yielding measures of the effect of stereotype internalization on academic effort, academic effort on GPA, stereotype externalization on performance burden, and performance burden on GPA, all controlling for the individual's SAT score, high school GPA, and the percent of college costs paid by family. Table 3 presents coefficients associated with the internalization and externalization pathways across the various institutional contexts. In general, the coefficients follow expectations derived from the hypothesis of stereotype threat. The internalization of negative stereotypes leads to a reduction of academic effort while the externalization of stereotypes increases the academic performance burden, with both of the latter effects lowering grades for black students.

With respect to the internalization pathway, however, we observe few differences in the strength of effects by institutional context. In those institutions characterized by a stronger reliance on affirmative action, the effect of internalization on effort is marginally stronger than in those placing less emphasis such programs, consistent with our stigmatization hypothesis. In terms of black representation on campus, students attending institutions with a relatively low black percentage appear to translate academic effort into grades with greater

efficiency than those attending schools with a high black percentage, but the effect of internalization in reducing academic effort is virtually identical.

Turning to the externalization pathway, we find that among black students at more selective institutions the effect of externalization on the academic performance burden is significantly greater than among those in less selective institutions, consistent with our hypothesis. More selective campus environments thus appear to highlight academic achievement in ways that focus attention on scholarly performance, thus heightening the potency of stereotype threat. Contrary to expectations, however, a greater emphasis on affirmative action was associated with a *less powerful* externalization effect on performance burden. Also contrary to our hypotheses, a higher representation of black students produced a *stronger* externalization effect.

In general, then, we uncover relatively little evidence of systematic differences in the potency of stereotype threat across institutional settings. Consistent with expectations the internalization of negative stereotypes appears to produce marginally greater disinvestment (reduced academic effort) for black students at high affirmative action institutions, but contrary to expectations the externalization of stereotypes translates into a greater performance burden for black students attending low affirmative institutions. Moreover, although greater institutional selectivity does appear to heighten the effect of stereotype externalization on performance burden, a high proportion of black students on campus is associated with a greater rather than a lesser effect of stereotype externalization on performance burden, in contrast to what we expected. For the most part, our hypotheses about contextual effects on stereotype threat are not borne out by the data.

INDIVIDUAL INFLUENCES ON STEREOTYPE THREAT

Table 4 tests whether the potency of stereotype threat varies by selected individual-level traits. Although parental background clearly has no effect, we do find results consistent with our hypotheses for three of the mediating variables. The translation of stereotype internalization into reduced academic effort is significantly stronger for multiracial than monoracial students and the effect of externalization on performance burden is likewise stronger among these same students. Similarly, students who attended integrated schools are more prone to translate internalization into academic disinvestment and externalization into a performance burden than those from segregated schools. Finally, the effect of internalization on academic effort is significantly greater among light-skinned than dark-skinned students; and although the effect of externalization on performance burden is not significantly greater for those with lighter skin tones, the contrast is nonetheless in the expected direction.

In sum, the data suggest that black students who have a non-black parent, light complexions, and who attended integrated schools while growing up are more vulnerable to the negative influences of stereotype threat. In order to show more concretely the effect of stereotype threat on grade performance, we generated predicted GPA's by letting both the internalization and externalization scales run from their minimum to maximum values while holding SAT scores, high school GPA's, and the share of college costs paid by family

members constant at their means. Figure 2 shows the effect of internalization and externalization on grade achievement for light- and dark-skinned students, while Figures 3 and 4 perform the same operation for monoracial versus multiracial students and for students from integrated versus segregated school backgrounds.

As shown in the top panel of Figure 2, dark-skinned students generally earn higher grades, on average, than light-skinned students, but as the internalization of negative stereotypes runs from minimum to maximum, the gap grows larger. At the minimum, dark-skinned students display a GPA of 3.09 whereas their light-skinned counterparts display a GPA of 2.54, a gap of 0.55 grade points. At the maximum level of stereotype internalization, however, the GPA of dark-skinned students remain relatively constant at 3.07 but that of light-skinned students has declined to 2.45, raising the gap to 0.62 grade points. Although the same pattern prevails when stereotype externalization proceeds from its minimum to maximum value, the gap is only marginally increased and the two lines are close to parallel.

We see much the same pattern in Figure 3, where the GPA gap between monoracial and multiracial students widens as internalization increases but doesn't change much as externalization increases. Thus at the minimum level of internalization monoracial students display a predicted GPA of 2.97 compared with 2.54 for multiracial students, yielding a gap of 0.43 grade points. At the maximum level of internalization, however, the GPA for monoracial students declined slightly to 2.94 but the GPA for multiracial students fall to 2.43, raising the gap to 0.51. At the same time, however, moving stereotype externalization from minimum to maximum leaves the gap virtually unchanged.

The situation depicted in Figure 4 is somewhat more complicated. Whereas students from integrated educational backgrounds earn higher grades than those from segregated backgrounds, they are more affected by stereotype internalization so that the gap narrows as the degree of internalization rises. At the minimum level of internalization students from integrated schools display a GPA of 3.00 compared with a value of 2.34 for students from segregated schools, yielding a gap of 0.66 grade points. At the maximum level, however, the predicted GPA for students from an integrated background drops to 2.94 while that for those from a segregated background remains almost constant at 2.33, reducing the gap slightly to 0.61 grade points. The gap between integrated and segregated students also falls very slightly as stereotype externalization increases, going from a differential of 0.46 at the minimum to 0.43 at the maximum.

In the end, therefore, it seems that the internalization pathway is more important in determining grade achievement than the externalization pathway. In general, light-skinned, multiracial black students from integrated educational backgrounds are more susceptible to the internalization negative stereotypes which translates into disinvestment through a reduction in academic effort. Although the ultimate effects on grades are not huge, they are significant and in the hypothesized direction, serving to widen the GPA gap between multiracial and monoracial students and between light-skinned and dark-skinned students, but narrowing the gap between students from integrated and segregated schools.

The one individual-level factor we have not yet considered is immigrant origins, and with respect to this mediator we obtain anomalous but interesting results. Although the internalization results are consistent with our hypotheses, the findings for externalization are not. As expected, native origin black students display a significantly stronger connection between negative stereotype internalization and disinvestment. As seen in Table 4, the effect of internalization on academic work effort is -0.209 for native origin students but just -0.021 for those of immigrant origin, a mere tenth of the effect for natives. On top of this differential, academic effort is more strongly connected to grade achievement among native origin than foreign origin students, thus exacerbating the ultimate effect on GPA.

Contrary to expectations, however, stereotype externalization is translated into academic performance burden to a much greater extent among immigrant origin students. Whereas the effect of externalization on performance burden is 0.238 for those of immigrant origin it is just 0.017 among those of native origin. Adding to the anomaly, immigrant origin students respond to a heightened performance burden in a way that is opposite what theory predicts. Whereas among native origin students, and in all other comparisons we considered, performance burden has a negative effect on grade performance, among students of immigrant origin the effect is *positive*. Rather undermining performance, among the children of immigrants a greater subjective performance burden in response to the perceived negative stereotyping of their abilities by others seems to spur greater academic achievement. In the end, therefore, immigrant origins end up conferring a protective effect in response to the externalization of stereotypes.

Figure 5 shows the effects of stereotype internalization and externalization on predicted GPA's for native and immigrant origin students. As can be seen, foreign origin black students generally earn higher grades than native origin students and the gap widens as both internalization and externalization increase. At the minimum level of stereotype internalization foreign origin students display a predicted GPA of 2.92 compared with 2.87 for those of native origin, for a gap of 0.05 grade points. At the maximum level of internalization, however, the gap has grown to 0.08 points as GPA fell to 2.87 for foreign students but to 2.79 among native origin students. Likewise, at the minimum level of externalization students of immigrant origin display a predicted GPA of 2.91 compared with 2.90 for natives, whereas at maximum externalization the respective figures are 2.93 and 2.90 , raising the gap from 0.01 to 0.03 grade points. Although these differentials are obviously small, they are once again significant and suggest that immigrant origins somehow confer some resistance to stereotype threat.

CONCLUSION

We began our analysis hypothesizing that certain institutional and individual characteristics mediate the relative influence of stereotype threat on the academic performance of black college students, either exacerbating or mitigating the potency of the threat through the internalization and externalization pathways identified by earlier studies. In the former pathway the internalization of negative stereotypes translates into disidentification and a reduction in academic effort and consequently lowers grades. In the latter pathway the externalization of stereotypes (expecting to be judged invidiously by others on the basis of

negative stereotypes) yields a higher academic performance burden that detracts from grade performance.

Drawing on data from the National Longitudinal Survey of Freshmen, we tested whether these mechanisms were affected by institutional characteristics such as public versus private sector, selectivity, commitment to affirmative action, and the relative representation of black students on campus. We found little evidence of strong or consistent effects of institutional context on the operation of stereotype threat among black college students. Although a few institutional characteristics produced differentials that were consistent with hypotheses, others yield results that were opposite theoretical predictions.

Our analysis of the mediating influence of individual-level characteristics yielded more interesting results that were generally consistent with hypotheses. Our data suggests that students whose “blackness” might be less certain—those educated in integrated schools, having a light skin tone or a non-black parent—were more susceptible to the negative influences of stereotype threat, displaying more of a tendency toward disinvestment and subjective performance burdens than black students who were monoracial, dark skinned, and educated in segregated schools. Of the two pathways, the internalization pathway ultimately had the greater effect on grade achievement, serving to widen the GPA gap between multiracial versus monoracial and light-skinned versus dark-skinned students as the level of internalization rose, but reducing the gap between students from integrated versus segregated backgrounds. Although the effects of internalization on grades were not particularly large, they were significant.

Consistent with what other social scientists have found, we also found evidence to suggest that immigrant origins confer a protective effect with respect to the influence of stereotype threat. Though the ultimate effects on grade achievement were not large, being the child of an immigrant significantly reduced the negative effect of stereotype internalization on academic effort; and although stereotype externalization produced more of a performance burden among immigrant-than native-origin students, their reaction was opposite that of all other black subgroups we considered. Instead of lowering grade achievement, a greater performance burden spurred immigrant origin black students to earn higher grades. As a result, as stereotype internalization and externalization rose, the GPA gap between immigrant and native origin students widened.

The foregoing conclusions suggest that stereotype threat is not a homogenous phenomenon that affects all people equally, but varies systematically according certain individual traits, underscoring the fact that today’s black college students are far from a homogenous group. Diversity with respect to background characteristics such as skin tone, multiracial origins immigrant background, and an integrated versus segregated upbringing can influence the operation of psychological processes and their behavioral manifestations. In this sense, researchers need to pay more attention to diversity within the black student population than they have in the past.

REFERENCES

- Aronson, Joshua; Steele, Claude M.; Salinas, Moises F.; Lustina, Michael J. The effects of stereotype threat on the standardized test performance of college students. In: Aronson, Eliot, editor. *Readings About the Social Animal*. 8th edition. New York: Freeman; 1998. p. 400-412.
- Bobo, Lawrence D.; Johnson, Devon. Racial attitudes in the prismatic metropolis: Identity, stereotypes, and perceived group competition in Los Angeles. In: Bobo, Lawrence D.; Oliver, Melvin L.; Johnson, James H.; Valenzuela, Abel, editors. *Prismatic Metropolis: Inequality in Los Angeles*. New York: Russell Sage Foundation; 2000. p. 83-166.
- Charles, Camille Z.; Fischer, Mary J.; Mooney, Margarita A.; Massey, Douglas S. *Taming the river: Negotiating the Academic, Financial, and Social Currents in Selective Colleges and Universities*. Princeton, NJ: Princeton University Press; 2009.
- Cullen, Michael J.; Hardison, Chaitra M.; Sackett, Paul R. Using SAT-grade and ability-job performance relationships to test predictions derived from stereotype threat theory. *Journal of Applied Psychology*. 2004; 89(no. 2):220–230. [PubMed: 15065971]
- Deaux, Kay. *To Be An Immigrant*. New York: Russell Sage Foundation; 2006.
- Fischer, Mary J.; Massey, Douglas S. The effects of affirmative action in higher education. *Social Science Research*. 2007; 36(no 2):531–549.
- Hernstein, Richard; Murray, Charles. *The Bell Curve: Intelligence and Class Structure in American Life*. New York: Free Press; 1994.
- Inzlicht, Michael; Schmader, Toni. *Stereotype Threat: Theory, Process, and Application*. New York: Oxford University Press; 2012.
- Kasinitz, Philip. *Caribbean New York: Black Immigrants and the Politics of Race*. Ithaca, NY: Cornell University Press; 2002.
- Lovaglia, Michael J.; Lucas, Jeffrey W.; Houser, Jeffrey A.; Markovsky, Barry N. Status processes and mental ability test scores. *American Journal of Sociology*. 1998; 104(no. 1):195–228.
- Major, Brenda; O'Brien, Laure T. The social psychology of stigma. *Annual Review of Psychology*. 2005; 56:393–421.
- Massey, Douglas S.; Charles, Camille Z.; Lundy, Garvey F.; Fischer, Mary J. *The Source of the River: The Social Origins of Freshmen at America's Selective Colleges and Universities*. Princeton, NJ: Princeton University Press; 2003.
- Massey, Douglas S.; Fischer, Mary J. Stereotype threat and academic performance: New findings from a racially diverse sample of college freshmen. *Du Bois Review*. 2005; 2(no. 1):45–68.
- Massey, Douglas S.; Mooney, Margarita A. The effects of America's three affirmative action programs on academic performance. *Social Problems*. 2007; 54(no. 1):99–117.
- Massey, Douglas S.; Probasco, Lierin. Divergent Streams: Race-gender achievement gaps at selective colleges and universities. *The DuBois Review*. 2010; 7(no. 1):219–246.
- Owens, Jayanti; Lynch, Scott M. Black and Hispanic immigrants' resilience against negative-ability racial stereotypes at selective colleges and universities in the United States. *Sociology of Education*. 2012; 85(no. 4):303–325. [PubMed: 24077577]
- Owens, Jayanti; Massey, Douglas S. Stereotype threat and college academic performance: A latent variables approach. *Social Science Research*. 2011; 40(no. 1):150–166. [PubMed: 23950616]
- Portes, Alejandro; Rumbaut, Ruben G. *Immigrant America: A Portrait*. 3rd Edition. Berkeley: University of California Press; 2006.
- Schuman, Howard; Steeh, Charlotte; Bobo, Lawrence D.; Krysan, Maria. *Racial Attitudes in America: Trends and Interpretations, Revised Edition*. Cambridge, MA: Harvard University Press; 1998.
- Sniderman, Paul M.; Piazza, Thomas. *The Scar of Race*. Cambridge, MA: Belknap Press; 1993.
- Steele, Claude M. The psychology of self-affirmation: Sustaining the integrity of the self. *Advances in Experimental Social Psychology*. 1988a; 21:261–302.
- Steele, Claude M. A threat in the air: How stereotypes shape intellectual identity and performance. In: Eberhardt, Jennifer L.; Fiske, Susan T., editors. *Confronting Racism: The Problem and the Response*. Thousand Oaks, CA: Sage Publications; 1988b. p. 202-234.

- Steele, Claude M.; Aronson, Joshua. Stereotype Threat and the Intellectual test performance of African Americans. *Journal of Personality and Social Psychology*. 1995; 69(no. 5):797–811. [PubMed: 7473032]
- Stricker, Lawrence J.; Ward, William C. Stereotype Threat: Inquiring about Test Takers' Ethnicity and Gender, and Standardized Test Performance. *Journal of Applied Social Psychology*. 2004; 34(no. 4):665–693.
- Waters, Mary C. *Black Identities: West Indian Immigrant Dreams and American Realities*. Cambridge, MA: Harvard University Press; 2000.

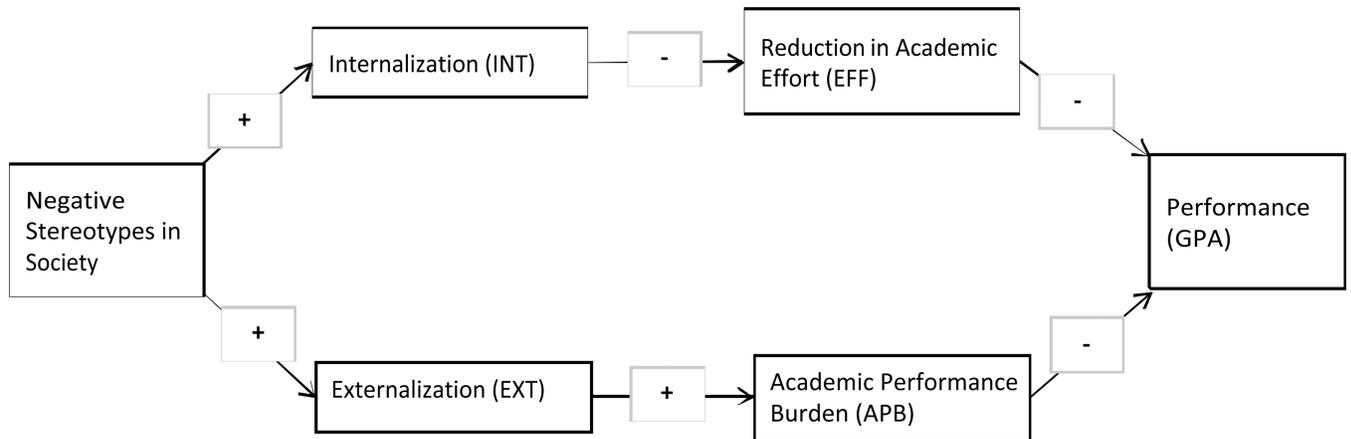


Figure 1.

Conceptual Model of Stereotype Threat with Expected Direction of Relationships between Concepts

NOTE: The boxes overlaying arrows contain '+' or '-' signs that indicate the expected direction of the effect based on the theory of stereotype threat. '+' represents an expected positive relationship between the two concepts, whereas '-' represents an expected negative relationship.

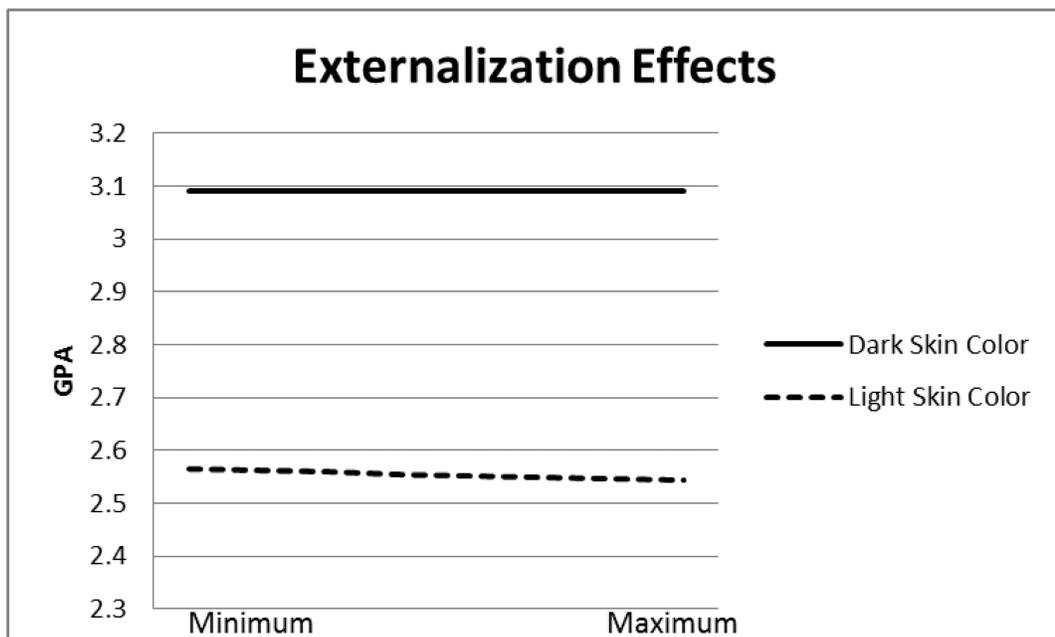
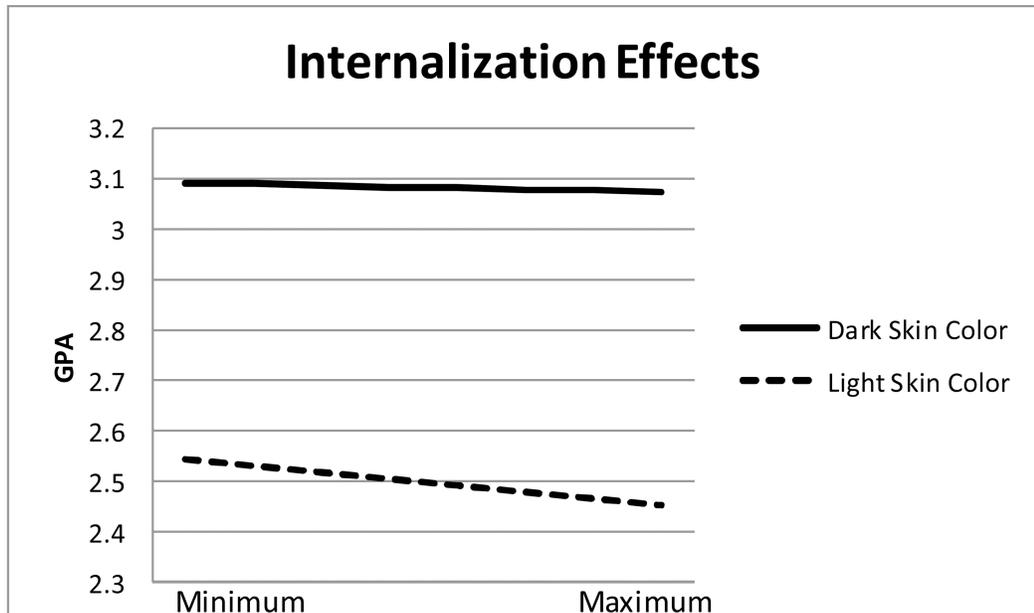


Figure 2. Effect of internalization and externalization of negative stereotypes on college grade point average by skin tone.

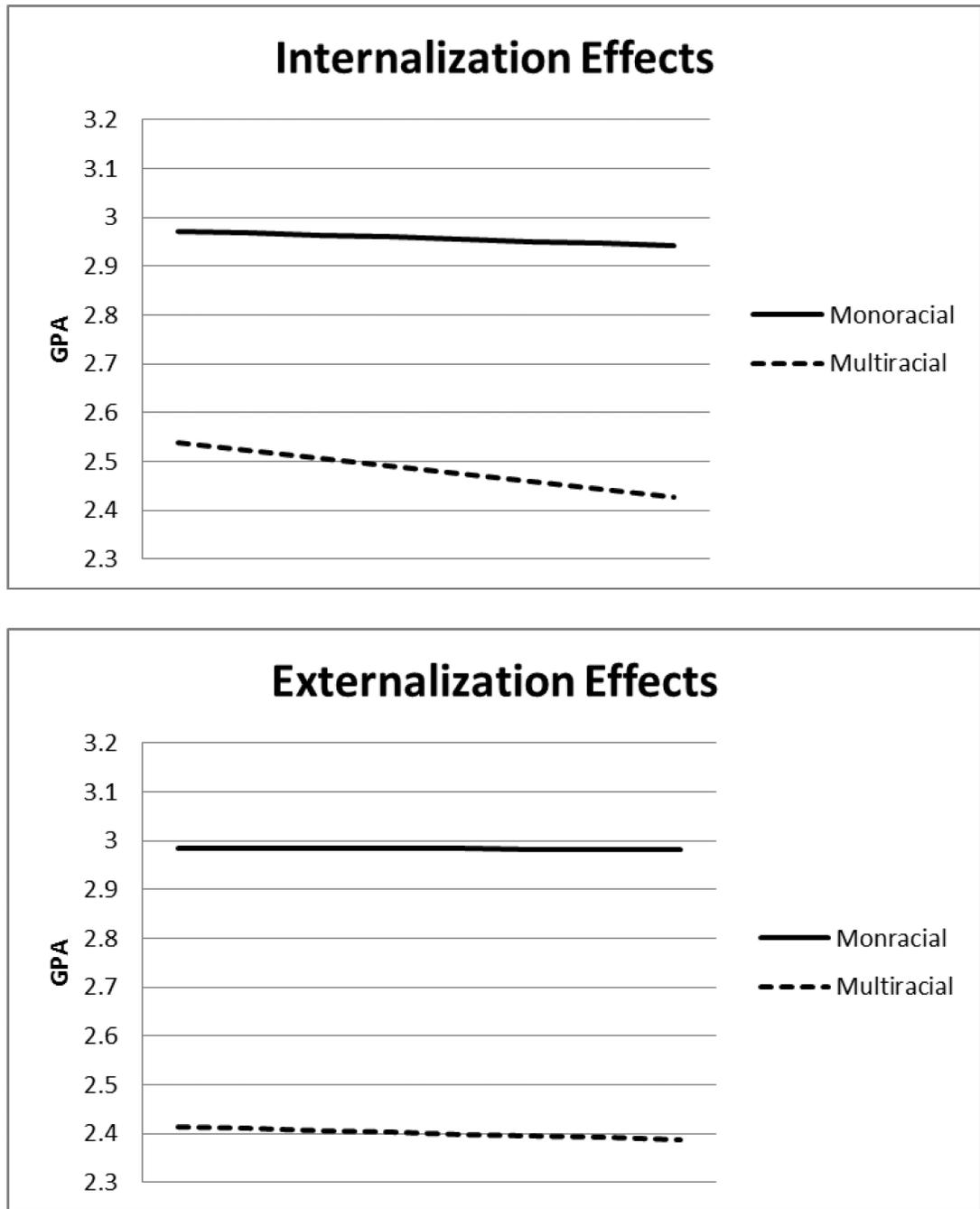


Figure 3. Effect of internalization and externalization of negative stereotypes on college grade point average by racial origins.

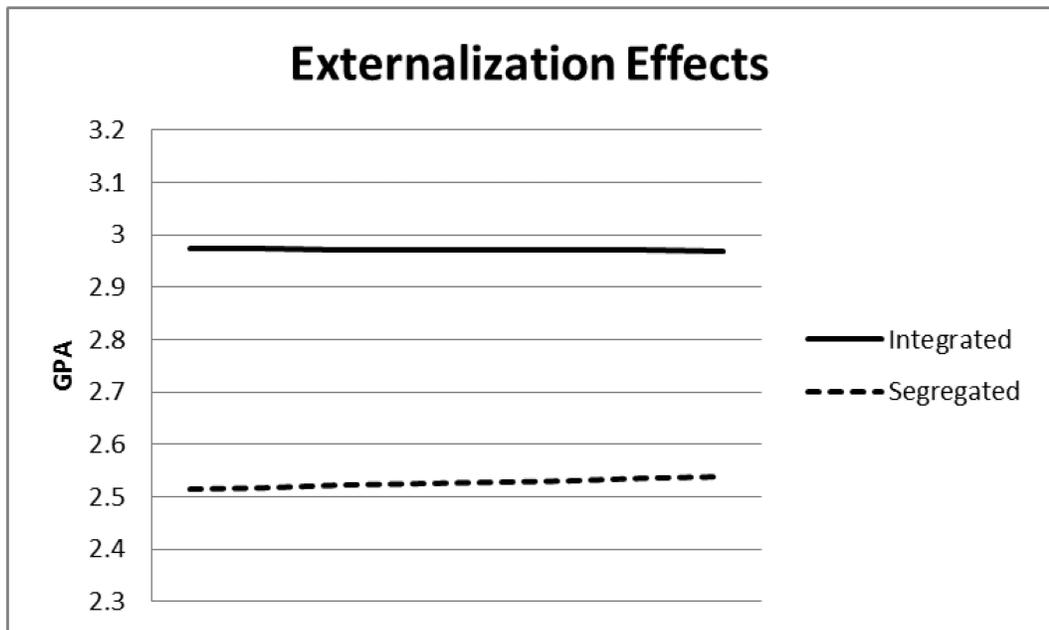
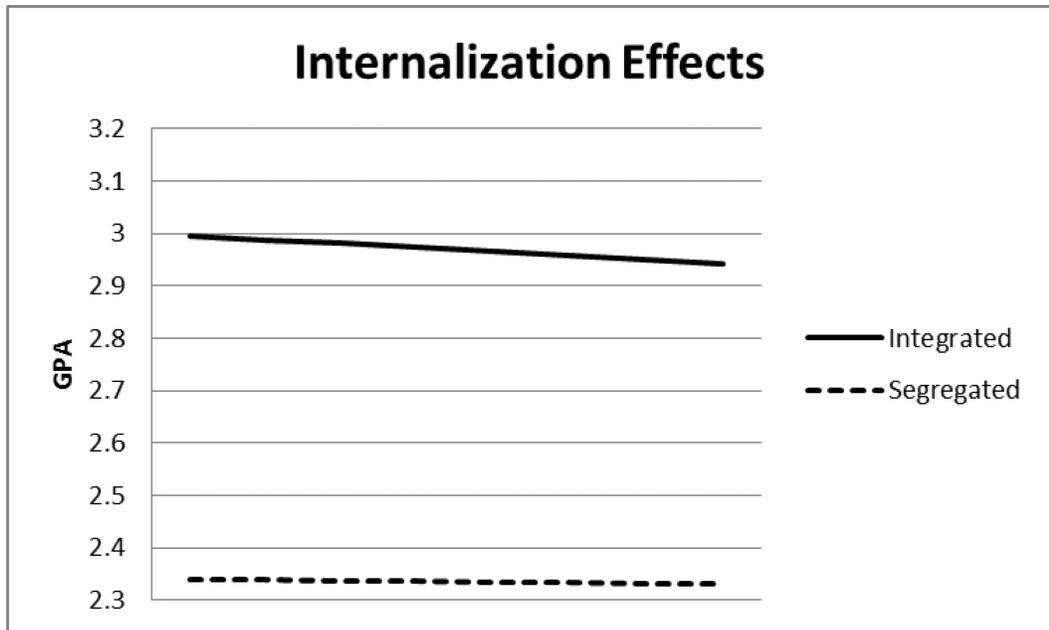


Figure 4. Effect of internalization and externalization of negative stereotypes on college grade point average by school origins.

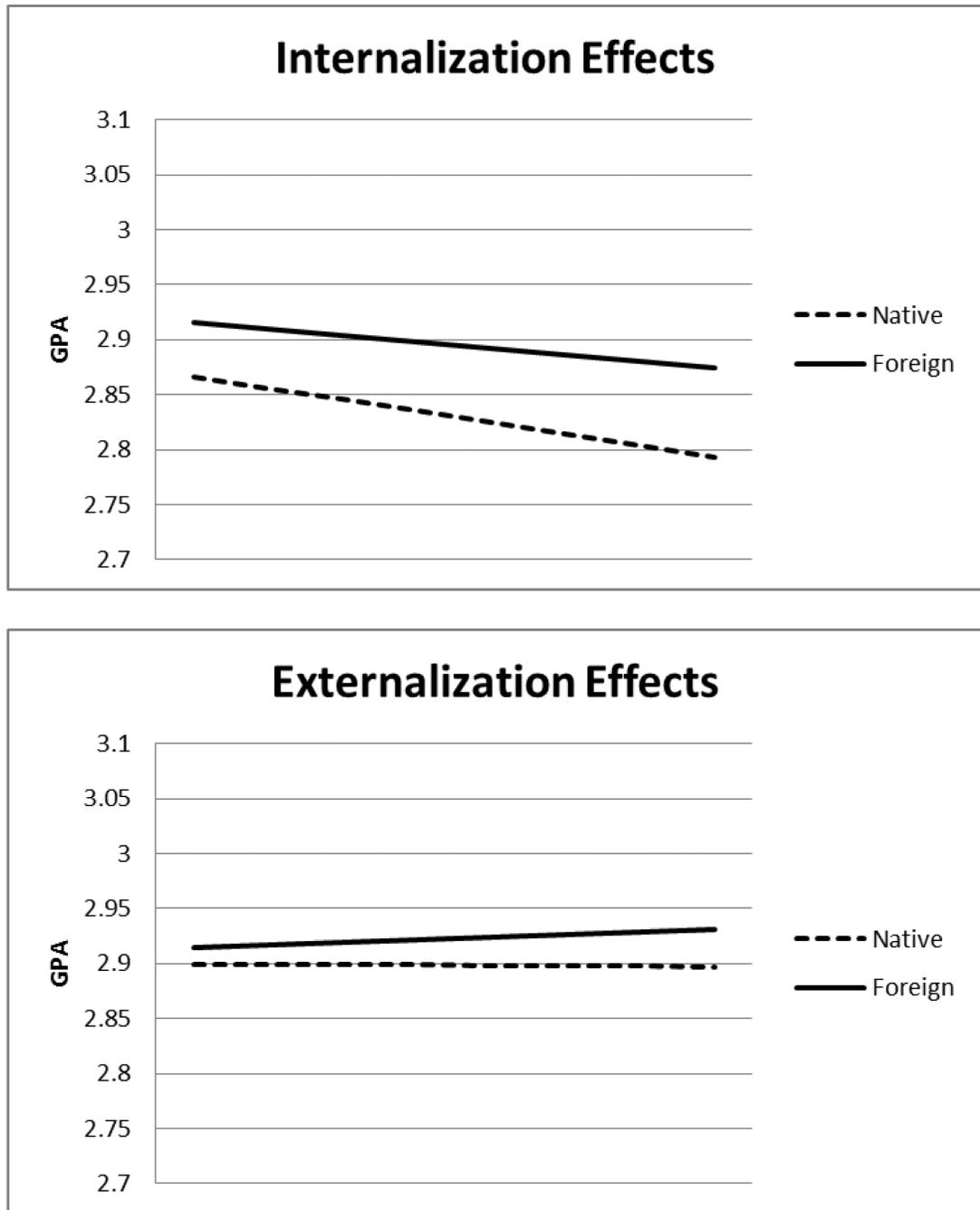


Figure 5. Effect of internalization and externalization of negative stereotypes on college grade point average by immigrant versus native origins.

Table 1

Indicators and dimensions of stereotype threat used in the analysis of immigrant and native origin black students.

Internalization (INT, $\alpha = 0.703$)
Own group is intelligent (0–6)
Own group is hard working (0–6)
Own group perseveres (0–6)
Externalization (EXT, $\alpha = 0.680$)
Whites treat other races equally or discriminate (0–10)
Asians treat other races equally or discriminate (0–10)
Instructors' stereotypes do not affect evaluations of members of stereotyped groups (0–10)
Students' stereotypes do not affect evaluations of members of stereotyped groups (0–10)
Academic Effort (EFF, $\alpha = 0.630$)
Average Number of Hours Studied in a 7 day Week/10 (0–12)
Importance of learning course material (0–10)
Self-reported [academic] effort during past year of college (0–10)
Average Hours of Recreational Activities during a 5 day Week/10 (0–10, reverse-coded)
Academic Performance Burden (APB, $\alpha = 0.763$)
Instructors think less of me for having difficulty in class (0–10)
Excelling academically reflects positively on my racial/ethnic group (0–10)
Doing poorly academically reflects negatively on my racial/ethnic group (0–10)
I don't want to look foolish or stupid in class (0–10)
If I don't do well, people will look down on others like me (0–10)
Self-conscious about the way White students perceive me (0–10)
Self-conscious about the way Asian students perceive me (0–10)
Self-conscious about the way teachers perceive me (0–10)

Table 2

Means, standard deviations, and ranges of variables used to analyze contextual effects on stereotype threat.

Variable	Mean	Standard Deviation	Minimum	Maximum
Academic Achievement				
Grade Point Average	2.969	0.468	0.433	4
Internalization Measures				
Internalization Score	6.591	2.292	0	14
Academic Effort	16.729	4.828	0	30
Externalization Measures				
Externalization Score	22.722	6.498	0	34
Performance Burden	30.947	12.531	0	63
Institutional Context				
Private Sector	0.678	0.467	0	1
High Selectivity	0.484	0.500	0	1
High Affirmative Action	0.472	0.499	0	1
Large Percent Black	0.698	0.459	0	1
Individual Context				
Light Skin Tone	0.497	0.490	0	1
Foreign Born Parent(s)	0.284	0.451	0	1
Multiracial	0.164	0.370	0	1
Parent College Educated	0.676	0.468	0	1
Segregated Schools	0.121	0.326	0	1
Control Variables				
SAT Score	1292.086	145.419	840	1600
High School GPA	3.708	0.330	1.667	4
% College Paid by Family	0.357	0.342	0	1.000

Table 3

Effect of stereotype threat on academic performance of African American students in selected institutional contexts.

	Internalization Pathway		Externalization Pathway	
	INT->EFF	EFF->GPA	EXT->APB	APB->GPA
Sector				
Public	-0.159	0.030	0.111	-0.003
Private	-0.137	0.019	0.072	-0.001
Selectivity				
Low	-0.176	0.023	-0.004	-0.003
High	-0.112	0.020	0.163	-0.001
Affirmative Action Emphasis				
Low	<i>-0.101</i>	0.019	0.187	-0.002
High	<i>-0.207</i>	0.025	-0.032	-0.002
Black Student Representation				
Low	-0.126	0.035	-0.071	-0.003
High	-0.146	0.015	0.154	-0.001

NOTE: Bold means coefficients different at $p < 0.05$; bold and italic means coefficients different at $p < 0.10$. All models control for student's SAT score, high school GPA, and family economic status.

Table 4

Effect of stereotype threat on academic performance of African American students in selected individual contexts.

	Internalization Pathway		Externalization Pathway	
	INT->EFF	EFF->GPA	EXT->APB	APB->GPA
Skin Tone				
Light	-0.310	0.021	0.105	-0.006
Dark	-0.047	0.024	0.058	0.000
Racial Origins				
Monoracial	-0.096	0.022	0.042	<i>-0.002</i>
Multiracial	-0.397	0.020	0.198	<i>-0.004</i>
Immigrant Origins				
Native	-0.209	0.025	0.017	-0.004
Foreign	-0.021	0.014	0.238	0.002
Parental Education				
1 ST Gen College	-0.132	0.027	0.073	-0.002
2 nd + Gen College	-0.155	0.020	0.089	-0.002
School Origins				
Integrated	-0.166	0.023	0.105	-0.001
Segregated	-0.029	0.023	-0.070	-0.010

NOTE: Bold=coefficients different at $p<0.05$; bold and Italic=coefficients different at $p<0.10$. All models control for student SAT score, high school GPA, and family economic status.