

Improving Minority Academic Performance: How a Values-Affirmation Intervention Works

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Research testing a social-psychological intervention designed to improve minority student performance and reduce the racial achievement gap is summarized. Key to the intervention is the notion that the risk of confirming a negative stereotype aimed at one's group, stereotype threat, can elevate stress to a level that can inhibit academic performance in minority students. Self-affirmation, a process known to bolster individuals facing identity threat, was administered in the form of a brief in-class values-affirmation writing exercise to lessen such stress and mitigate its impact. Several double-blind field experimental trials at a suburban Northeastern middle school with a student body nearly equally divided between African Americans and European Americans, found significant improvement in African American students' grades as well as on their statewide achievement test scores. How a seemingly small intervention can lead to significant reduction in the racial achievement gap is discussed in concluding remarks.

Closing the racial achievement gap is a national imperative in the United States. Academically at-risk minority students, such as African Americans and Latino Americans, perform almost a standard deviation below European American students on standardized intelligence tests (Jencks & Phillips, 1998). They also have lower grades than their European American and Asian American peers.

To the concern of all involved, the authors included, the gains made since 1990 in closing the gap have not been proportional to the resources and commitment devoted to it (Dillon, 2006; Neal, 2005). A National Assessment of Educational Progress (NAEP) report found the difference in average reading and math scores of African American and European American eighth-graders to be virtually unchanged between 2007 and the early 1990s (Vanneman, Hamilton, Baldwin Anderson, & Rahman, 2009). Moreover, between the years 2004 and 2007, of every hundred African Americans, ten had not received a high school diploma or its equivalent, while for every 100 Latino Americans 22 had not. By contrast, during this period the number of European Americans not receiving a high school diploma or its equivalent was six out of every 100 (U.S. Department of Education, 2009).

Racial differences in socioeconomic status were long thought to be at the heart of these performance gaps (Hacker, 1995; Jencks & Phillips, 1998). However, at every level of socioeconomic status academically at-risk minority students score lower on standardized tests such as the SAT and earn lower grade point averages than their European Americans counterparts (Bowen & Bok, 1998; Steele, 1997). While it is undeniable that such socio-economic factors have a substantial role in academic performance, there is a clear imperative to examine other factors that may also be undermining minority achievement.

We focus on how social psychological factors influence these academic outcomes. These include students' group or "social" identity, particularly among those ethnic groups that have historically faced prejudice in school and the larger social context. For these minority students, school can evoke concerns that they will be judged on the basis of a negative stereotype about the intellectual ability of their race—that is, confront stereotype threat (Steele & Aronson, 1995; Steele, Spencer, & Aronson, 2002). Due to the living legacy of discrimination in the U.S., which includes negative stereotypes, members of these groups are more likely to experience psychological threat in school and work and to display lower performance as a result. In situations where the stereotype is relevant, such as taking a test, the fear that they or another group member may confirm the stereotype in the minds of others can cause stress (Blascovich, Spencer, Quinn, & Steele, 2001; Steele et al., 2002; Cohen & Garcia, 2005). Stress in turn can undermine performance, as when people choke under pressure. This threat may occur even if students cannot articulate the source of this stress and regardless of the objective level of discrimination or prejudice in a school.

Given the pervasiveness of stereotype threat and its negative impact on students' sense of security, one effective way to buffer students against such stressors is to provide them with opportunities to shore up their sense of self. One way to do so is to allow them to affirm core personal values that they deeply care about (Sherman & Cohen, 2006; Steele, 1988). Not only do self-affirmations secure students' sense of self-integrity in a threatening environment, but they also reduce stress (Creswell et al., 2005; see also Martens, Johns, Greenberg, & Schimel, 2006; Sherman et al., in press; Sherman & Cohen, 2006). When people reflect on important values that transcend a stressful situation—for instance, their relationships or religion—they feel less stressed and are better equipped psychologically to cope with the threatening situation. The series of values-affirmation exercises, or "self-affirmations," that we administer as structured writing assignments during our intervention reduce the stress of being the target of a negative racial stereotype by having students reflect on self-defining values, such as relationships with friends, sports, or religion, over the course of the school year.

Putting our money where our theory is: Testing a values-affirmation intervention

Our work found that a self-affirmation intervention improved the grades of middle-school African American students (Cohen, Garcia, Apfel, Masters, 2006; Cohen, Garcia, Purdie-Vaughns, Apfel, Brzustoski, 2009). Follow-up data indicate similar positive effects on state achievement test scores (Garcia, Cohen, Purdie-Vaughns & Cook, 2009). In this work, we conducted three double-blind field experiments at a suburban Northeastern middle school whose student body was divided almost evenly between African Americans and European Americans (two experiments in the original 2006 paper, an additional study in the 2009 follow up). As children are randomly assigned to receive the intervention and both they and their teachers are unaware of their assignment to an intervention, its nature, and expected effects (double blind experiments), we can be extremely confident that differences observed between children receiving the intervention and those that do not are not due to some spurious occurrence, teacher expectancies, student selection effects, or so called placebo effect, but are in fact genuine differences caused by the intervention.

Seventh graders from middle- to lower-middle-class families completed a series of values-affirmations—structured-writing assignments designed to bolster their sense of self-integrity and thus reduce their stress over the possibility of confirming negative stereotypes. In-class exercises, presented as part of the regular classroom curriculum, instructed students to complete a packet in which they were first presented with a list of values, such as relationships with friends or family, music, or artistic interests (McQueen & Klein, 2006; Sherman & Cohen, 2006). Students who had been randomly assigned to receive the self-affirmation circled their most important values and, in response to a series of prompts, wrote a brief essay about why those values were important to them. By contrast, students who had been randomly assigned to the control condition completed neutral exercises such as writing about an unimportant value or their morning routine.

Our results revealed that affirmed African American students earned higher fall-term grades and GPA from official school records, in the affirmation condition than those not affirmed. Moreover, the affirmation intervention cut the percentage of African American students receiving a D or F grade in the course in which it was administered from 20% for students not receiving the affirmation to 9% for those receiving it, cutting the poor performance rate approximately in half. The intervention's effect was on average .30 grade points in this class (on a grade metric "A" = 4.0, "B" = 3.0, etc.). The greatest benefit to African American students of the intervention was that it eliminated roughly 40% of the achievement gap in the class that had existed between the races prior to the intervention. Additionally, the intervention's benefits were apparent across all levels of performance for African Americans. Its impact was significant for those students classed as low and moderate in achievement prior to its administration, and nearly so for those high in prior achievement. Finally, the effects of the intervention spilled over to benefit African Americans' grades in their other core courses.

A two-year follow up to the study assessed whether the affirmation intervention buffered these same minority students from the effects of psychological threat over the long term (Cohen et al., 2009). If it did, would this lead to academic benefits beyond those that were found in a single academic term? The answer is yes.

The academic performance of three separate cohorts was observed for a period running from the first term of seventh grade to the end of eighth grade. The performance data during this period showed that the intervention effect on overall GPA persisted for at least two years (average of grades in math, English, social studies, and science). Interestingly, on closer examination, the intervention's effect on two-year GPA for African American students was largely driven by those classified as low achievers prior to its administration, a group often least responsive to intervention. Given the costs in terms of the time and resources dedicated to low-achieving students by schools, teachers, and society, these latter results were particularly encouraging. Moreover, our affirmation intervention lessened the typical downward performance trend found in middle school for African American students. It thus prevented the race gap from growing with time.

How does it work? What processes lead to apparently small interventions having such long-term effects?

The value-affirmation intervention acts like a *catalyst*. It permits the positive forces in school to assert a fuller impact (Garcia & Cohen, in press). In many schools the teachers are skilled and concerned, and the children not only have the motivation and ability to achieve, but have acquired new knowledge and skills. The impact of these forces, however, is blunted by other factors, such as stress, that prevent people from performing to their potential. This is akin to a skilled athlete underperforming while under pressure, despite his or her training and supportive coaches. The affirmation reduces stress, allowing people's skills to be more completely displayed and the institution's resources to have greater impact.

Moreover, *recursive processes acting like chain reactions* then carry forward the initial effects of the intervention (Cohen et al., 2009). A small improvement early in the year due to the intervention might, for example, give children a little extra confidence, and this confidence might lead to further gains in performance, in a potentially repeating cycle that sustains their performance for a long time. Likewise, a small intervention early in the school year might only raise children's performance by a modest amount. But, if their teachers had not expected this, then they may come see such students as more able and worthy of attention and mentoring. The effects of teacher expectancies could then assert themselves, acting as channels that carry forward and amplify the effects of the intervention.

It will be important to test the intervention in more diverse and less privileged environments, for instance urban and economically poor schools. However, our use in our original research of a relatively middle class suburban school has two key merits. First, given the prevalent idea that the primary source of the achievement gap is socioeconomic status, if racial

differences still exist in relatively advantaged schools, as they do, such gaps provide fodder to those who would attribute the race gap to some inherent and persistent difference in ability. In this respect such an environment as the school where this research was conducted provides a strong test of our hypothesis that racial differences are not due solely to socioeconomic status and are not due to inherent fixed differences between groups, but rather due to dynamic social-psychological factors. Second, to be effective, our intervention requires the presence of other key resources in the school and classroom environment. This is because the intervention acts as a catalyst. In environments where such resources are of poor quality or non-existent, the intervention's benefits, if they occur at all, will be less pronounced and most likely of shorter duration. Nevertheless, if whatever existing factors in the school can carry forward any improvement, small effects could matter in the long run. In closing we note that we are currently testing the intervention in a more disadvantaged school whose student body is nearly equally divided between Latino Americans and European Americans. Our initial findings are both positive and promising. As Latino Americans are the fastest growing population in the United States (U.S. Census 2000), if our findings prove robust they would provide another hopeful possibility for future intervention.

In Conclusion

We believe that our research advances an understanding not only of the achievement gap but also of school achievement in general. Identifying remedies of the racial achievement gap may improve the school achievement of all students by shedding light on the performance processes that affect us all. The effects of psychological threat and stress may help explain when and why people in general perform below their potential. Given that many adolescent students, regardless of race, begin a downward trend in middle school, a scientific understanding of under-performance will help teachers and policy-makers improve the lives of young children during their vulnerable transition to adulthood.

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