On Stereotype Threat and How to Combat it

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Women underperform on "high stakes" math achievement tests relative to men (Cole, 1997). African Americans and Hispanics score much lower than Whites on measures of general academic achievement (Halpern, 2000). These performance deficits carry dramatic, lifelong consequences for women and African-Americans, since high stakes achievement tests serve a gateway function for college entry.

Empirical evidence has been accumulating over the past decade that one factor, stereotype threat, may explain some aspects of underachievement. Stereotype threat emphasizes both intrapersonal processes and the testing environment. It refers to the added pressure experienced by minority-group members in a situation in whichit might be possible to confirm a negative stereotype. The result of this extra burden is hindered test performance.

Steele and Aronson (1995) were the first to empirically demonstrate the effects of stereotype threat. In a series of experiments, they showed that Black students' scores on a measure of verbal ability were depressed in a testing condition that was presented as being diagnostic of intellectual ability (e.g., by being given instructions that explicitly conveyed that the test was one on which minorities did worse than Whites). In contrast, when the test was presented as merely an investigation of problem-solving ability, Blacks scored markedly higher, with their scores equaling those of Whites when verbal ability was controlled. The stereotype-threatened participants attempted, completed, and answered correctly fewer items than did participants in the other conditions. This was not due to a lack of effort; Black participants in the diagnostic condition spent significantly more time on each test item. Measures of cognitive interference and anxiety also failed to account for performance differences. Interestingly, stereotype threat can even be elicited when the test instructions in the stereotype threat and control conditions differ only on whether the participants are asked to record their race at the start of the test (i.e., even when test-takers are *not* told that the test is one on which minorities underperform).

By definition, stereotype threat is a potential mitigating factor in ability test performance for a member of any social group for which a negative ability stereotype exists. As such, researchers have identified stereotype threat in a number of groups and situations, including women on tests of math performance (Spencer, Steele, & Quinn, 1998), low socio-economic status college students on a test of intellectual ability (Croizet & Claire, 1998), and even White males on a math task when confronted with a negative comparison to Asian males (Aronson, Lustina, Good, Keough, Steele, & Brown, 1999). The pattern of results is remarkable for its consistency: when a negative stereotype is

elicited during an ability-diagnostic task, participants who are members of the threatened group usually under-perform relative to their known ability.

But does stereotype threat affect every group member equally? There are at least two necessary conditions that mediate whether stereotype threat will influence performance. The most important mediating factor is the degree of identification with the ability domain that is being tested. That is, a person must care about his or her performance in a given ability domain and view performance as indicative of something important about the self (Aronson, et al., 1999). The second essential precondition for the elicitation of stereotype threat is the presence of a believable stereotype that is relevant to performance in an ability domain. However, Aronson and his colleagues are careful to point out that neither a long history of group stigmatization nor an internalized feeling of domain-relative inferiority are necessary for stereotype threat to exert its influence.

Taken together, these factors suggest those who are most at risk for experiencing stereotype threat and its resultant performance deficits: Individuals who highly identify with a relevant ability domain and who are identified as members of the group for which a negative stereotype exists are most at risk. Special care should be taken in the administration of ability tests to these persons, with an eye towards reducing the activation of relevant stereotypes. To accomplish this, directions for tests and other test-related procedures (e.g., the collection of demographic information) should not make any reference to potential stereotype-relevant information, such as by asking the test-taker to indicate her or his gender, racial, ethnic, or class identity until after the test items have been completed.

Another recommendation calls for less emphasis to be placed on tests as being purely ability-diagnostic. Instead, tests should be more accurately presented as measurements of current achievement, not innate ability or aptitude. Such a shift in presentation makes more explicit what only some students have implicitly discovered: that test performance represents not only ability but also the amount of preparation put into an ability domain. Likewise, encouraging students to adopt an incremental (rather than a fixed-entity) view of intelligence has proven effective in alleviating stereotype threat (Aronson, Fried, and Good, 2002).

Another promising avenue of intervention suggests that teachers may help their students by directing them to think about other aspects of the self (particularly positive aspects) or to describe themselves as unique prior to taking important achievement tests. Both of these techniques work by reducing the self-relevance of the performance-threatening stereotype (Croizet, Desert, Dutrevis, & Leyens, 2001). Finally, providing students with positive role models may also help to combat stereotypes. A stereotype should hold less sway if one has personal evidence to counter it.

While future research should continue to probe the developmental emergence of stereotype threat as well as the potential role it may play in the academic disidentification

of minority students, the practical solutions outlined in this brief could be implemented even in the absence of such knowledge.

References

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