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Addressing a "Threat in the Air": How Stereotypes Affect Our Students and What We Can Do About It





“It is a peculiar situation, this double-consciousness, this sense of always looking at one’s self through the eyes of others...”

- W.E.B DuBois “The Souls of Black Folk”

Our sociality - our [interactions with others](#) and our social environment - are central to the [learning process](#)[1]. Yet while our sociality is foundational to the learning process, it is this very sociability that can also hinder our learning. Cultural stereotypes, social identity, and the social environments of college and universities shape students’ motivation, identity, and academic success.

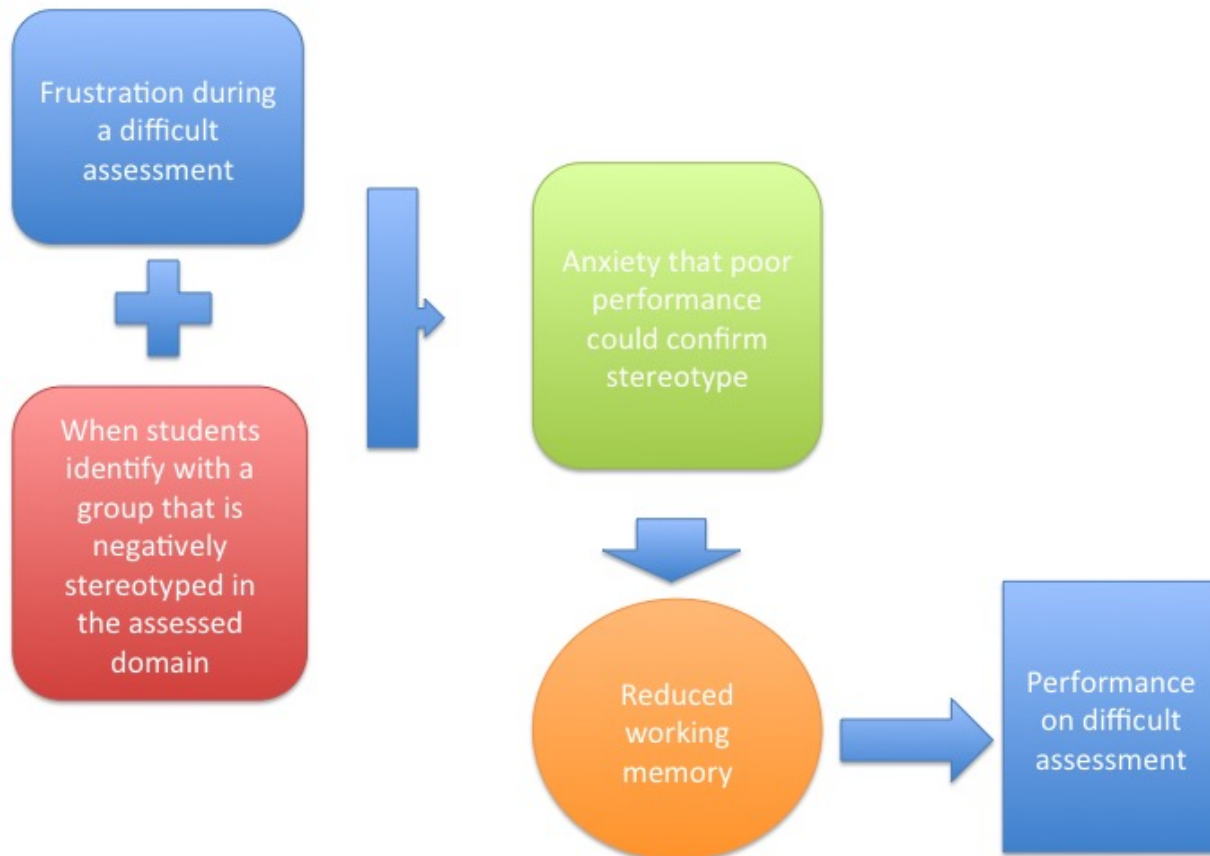
In today’s post I want to focus on the sociability of learning with a look at what the research tells us about how stereotypes affect student learning and performance in our classrooms and the ways in which we can address situational factors and mitigate the negative effect of stereotypes.

Stereotypes about the academic potential of students of color and women are pervasive and persistent in our society. For example, a few months before his death at the end of 2015 Supreme Court Justice Antonio Scalia, referring to [race conscious affirmative action policies](#), remarked that non-white students are at risk for being “pushed into schools that are too advanced for them[2].” Yet even as de jure and overt racism/sexism are receding, research shows that our [implicit biases](#) - unconscious beliefs underlying negative stereotypes -continue to influence our assumptions about people and behavior. Stereotypes are powerful because they not only shape how we view others, but how we [view ourselves](#).

The sociologist W.E.B. DuBois, in his 1903 publication *The Souls of Black Folk*, described a concept he called *double-consciousness* whereby he argued that black Americans lived in a society that not only devalued them but required them to devalue themselves: to measure “one’s soul by the tape of a world that looks on in amused contempt and pity.” He argued that as a result the lives of black Americans were shaped by the dominant culture’s stereotypes about them. Almost a century later, in their 1995 paper in the *Journal of Personality and Social Psychology* titled “Stereotype threat and the intellectual test performance of African Americans,” Claude Steele and Joshua Aronson documented that little has changed. In their pioneering study they found that when a verbal test was introduced as diagnostic of academic ability, blacks tended to perform worse than whites[3]. They called this phenomenon “stereotype threat” and argued that the threat of possibly satisfying or confirming a negative stereotype attached to one’s identity can interfere with a subject’s academic performance. Something as simple as [filling out a questionnaire](#) highlighting one’s race or gender prior to taking a test may be enough to trigger stereotype threat.

What does it mean to have an identity that evokes devaluation in the very setting that one learns? Everyone feels some level of anxiety and stress when taking a difficult test or performing a complicated task. Yet those who face negative stereotypes about their abilities and intelligence have an added stressor that increases the cognitive load they are under. It is thought that the primary mechanism behind stereotype threat is the anxiety one feels about their performance confirming a stereotype and the subsequent reduced [capacity of working memory](#). Interestingly,

the research shows that the effects of stereotype threat are only visible (even if they are still present) when the task or assessment is difficult and when the cognitive load is great. In other words, when student's identity is under threat and they are engaged in a difficult task their cognitive energy is divided between the task at hand and self-evaluative concerns.



Stereotype Threat Mechanism

Adapted from POD 2015 [Pre-conference Workshop](#) "Inclusive Teaching and Learning in Science, Technology, Engineering, and Mathematics" by Beth Fisher and Regina Frey

Since the Steele and Aronson study over 300 articles have been published on the topic and majority of subsequent studies have replicated and extended the stereotype threat effect on multiple populations and under various measures of performance. Some examples are:

- [Women](#) on difficult math tests;
- [Whites](#) with regard to appearing racist;

- Students from [low socioeconomic](#) backgrounds compared to students from high socioeconomic backgrounds on intellectual tasks;
- Men compared with women on measures of [social sensitivity](#);
- [Whites](#) compared with Asian men in mathematics; and,
- Whites compared with Blacks and Hispanics on tasks assumed to reflect [natural sports ability](#).

Anyone can be triggered by the situational factors that produce stereotype threat. However, the consequences of exposure to a “threat” depend on a person’s beliefs, attitudes, and self-concept. To be clear I am not saying that individuals are at fault for how stereotypes affect them and that they need to just have the wherewithal to ‘overcome the stereotype[4]’. What I mean is that the [stronger one identifies](#) with the stereotyped group and the stronger their sense of belonging to the domain in which their performance will be assessed, the greater “threat” the stereotype poses. [For instance](#), a 2002 study demonstrated that when women’s gender identity was linked to their performance on a test, women with high gender identity performed worse than men, but women with low gender identity performed equally to men. Another [study](#) looking at young women’s performance on math assessments found that the stereotype threat was more prevalent for women who strongly identified as being ‘good at math.’

Early research on stereotype threat focused on identifying the process, the consequences, and who was affected. In addition, early studies also showed that the most widely replicated effect of stereotype threat is underachievement on assessments[5]. But the consequences of stereotype threat are not limited to assessments and performance. For example, [disengagement](#) and [altered professional identities](#) have been documented and linked to the gender and racial inequities in STEM fields. And increasingly the research is pointing to the ways in which the [learning](#) process itself is affected.

So, what can we do in our classrooms and our interpersonal interactions with students to create [identity safe environments](#)? Current research provides evidence for the effectiveness of targeted classroom interventions that can be used to change the situational factors that elicit stereotype threat, mitigate the effects of stereotype threat, and teach adaptive methods. The following is a list of what I have found to be some of the most compelling evidence-based strategies for addressing stereotype threat in our college classrooms.

1. **Teach about stereotype threat.** Identifying and naming stereotype threat can buffer the performance of students most likely to be affected. [A 2005 study](#) found that when women were taught about stereotype threat prior to taking a difficult math test their performance was similar to men’s (while it was lower in the control group). The authors conclude that when women were able to attribute their anxiety to stereotypes about women’s math abilities they were better able to reduce its detrimental effects.

2. **Provide students with a sense of belonging and external attributions for anxiety.** [A 2012 study](#) tracked college students over a three-year period from their first year through their third year of college. In this field trial they provided college students in their first year with narratives

from older students that framed social adversity as common and short lived. This encouraged students to attribute anxiety to the college adjustment process and not unique to themselves or their ethnic group. Over three years this intervention raised Black students' GPA relative to the control group and halved the achievement gap.

3. **Provide opportunities for [self-affirmation](#) and priming positive aspects of the self that are not related to performance in the classroom.** The social psychologists Geoffrey Cohen and David Sherman have written extensively about the benefits of “values affirmation” in counteracting the effects of stereotype threat and providing students with a greater sense of global adequacy. In their [research](#) they found that when students engage in a values affirmation activity during a time of significant stress it gives them a more expansive view of themselves so that one threat does not loom as large. For example, in [two double-blind experiments](#) where students wrote about the importance of a personal value and its role in their lives, black students earned a higher GPA at the end of the course relative to the control group and those earning a D-grade or below was cut in half.

4. **Provide positive role models and examples of individuals that have performed successfully in your field or discipline.** In a [2012 study](#) Shaffer and colleagues found that presenting *positive group-based information* regarding women's success and progress in STEM fields resulted in women performing as well as men on a math test, despite being in a stereotype threat situation. Interestingly this intervention had no effect on men's performance indicating that highlighting the contributions of minority groups does not have a detrimental effect on the majority group.

5. **Give “wise feedback.”** Combine high standards and specific feedback with expressed confidence that all can achieve. In [three double-blind field](#) experiments Yeager and colleagues (2013) introduced interventions that encouraged students to attribute the critical feedback they received to their teachers high standards and belief in their potential to reach those standards. In a series of three studies on this “wise feedback” intervention they found that black students were more likely to turn in revised essays, makes changes suggested by the teacher, and write better revisions and there was a significant reduction (40%) in the racial achievement gap.

Other ways to address stereotype threat:

- [Reframe the task.](#) Include a brief statement about the fairness of the assessment and emphasize that the test is “gender-fair” or “race-neutral.”
- [De-emphasize threatened social identities](#) by removing or changing the location of demographic information. If you must ask about gender, race, and/or ethnicity with an assessment, ask for this information at the end.
- [Promote diversity and diverse perspectives.](#) Explain the value of diversity by emphasizing that it stimulates fresh thinking and new solutions to issues.
- Create an [inclusive environment](#) in the classroom through course content and interactions between students and faculty.
- **Avoid referring to students' performance as reflective of “natural” ability or talent.** Perceptions of a [“growth-mindset”](#) environment can help students maintain a sense of belonging in a field even when they encounter negative stereotypes. Research has even shown that an awareness of a stereotype that links identity to ability or

intelligence can depress students' performance, even when a stereotype is not explicitly invoked or "primed."

The vast body of research on stereotype threat demonstrates that our beliefs about others and ourselves hold powerful influence over lives - and more specifically our academic opportunities and outcomes. Stereotype threat is a pervasive and persistent problem in our society, our college campuses, and our classrooms. The strategies and interventions I have described may strike you as too simple to have an effect on something so entrenched as stereotypes. You may be asking yourselves if an intervention as straightforward as being explicit about the fairness of a test or asking for demographic information at the end of a test can really address the threat that stereotypes pose for our students. The research shows that they can.

I hope that as you look over the list of interventions I outlined above you see a few things you can easily implement in your own classes and interactions with students. And it is likely that if you are reading this post you probably see a few things you already do. Hopefully you see ways that you can start or continue to address the threat that many of our students are under, because the simplicity of these interventions also reveals the cumulative and ubiquitous effect of negative stereotypes on our students' learning and performance.

[1] The scholarship on teaching and learning [backs me up](#) on this.

[2] He was referring to the "[mismatch theory](#)." However, current research demonstrates that minority students are in fact [not mismatched](#), but with the right support and interventions they can excel with "[affirmative meritocracy](#)."

[3] Corrected for SAT scores – this aspect of the research has [challenged by some](#) but has gained little traction.

[4] In fact this attitude can result in what Claude Steele calls "over-efforting" in his book [Whistling Vivaldi](#), whereby students expend great energy and effort, but often find themselves falling behind other students that appear to work less. Steele points to their social isolation from other students, due to their fear of confirming stereotypes, as one factor that requires them to work harder and without the resources that social networks can bring – such as study groups.

[5] This alone produces significant inequities when viewed in light of the relationship between test scores and the racial and ethnic [inequality in higher education](#).

Posted on June 6, 2016 by Robin Paige.

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