

TRANSFORMATIVE LEARNING

Inoculating Against Failure Caused by Stereotype Threat

UCO Transformative Learning helps expand students' perceptions of their relationship with self — we seek to help students better assess themselves as learners, better assess their capabilities to succeed, and better assess their potentials and therefore the range of their opportunities. Knowing the truth about their capabilities — not shortchanging themselves as well as understanding the challenges before them — can be one of the most transformative lessons our students learn.

What if students who believe they are “dumb in math” learn the truth that they're not? That would open up a whole new realm of possibilities concerning majors. What if first-generation students who believe they have deficits which prevent them from even being college students in the first place learn the truth that they possess all the resilience necessary to complete college? That would dramatically lessen the chances they would drop out.

But what if insidious, below-conscious-level acceptance of stereotypical assumptions derails students' discovery of their own truths? Research by University of Massachusetts-Amherst professor Nilanjana Dasgupta (2011) sought to discover to what degree this happens and what can be done about it. She developed the analogy of in-group peers acting as social vaccines to inoculate students against stereotype threat.

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First, what is stereotype threat? Here's a good characterization from a foundational article about the phenomenon:

. . . social-psychological predicament that can arise from widely-known negative stereotypes about one's group. . . the existence of such a stereotype means that anything one does or any of one's features that conform to it make the stereotype more plausible as a self-characterization in the eyes of others, and perhaps even in one's own eyes. We call this predicament *stereotype threat* and argue that it is experienced, essentially, as a self-evaluative threat. (Steele & Aronson, 1995, p. 797)

Stereotype threat plays itself out as a self-imposed prophecy of limitation that is triggered by reminders of one's membership in a group which is stereotypically thought of as underperforming compared to other groups.

Who suffers from stereotype threat? The list of groups about which research has been conducted and which have been found to underperform due to stereotype threat may surprise you:

- women in math (e.g., Spencer, Steele, & Quinn, 1999; Walsh, Hickey, & Duffy, 1999);
- Whites with regard to appearing racist (Frantz, Cuddy, Burnett, Ray, & Hart, 2004);
- students from low socioeconomic backgrounds compared to students from high socioeconomic backgrounds on intellectual tasks (e.g., Croizet & Claire, 1998; Harrison, Stevens, Monty, & Coakley, 2006);
- men compared with women on social sensitivity (Koenig & Eagly, 2005);
- Whites compared with Asian men in mathematics (e.g., Aronson, Lustina, Good, Keogh, Steele, & Brown, 1999);
- Whites compared with Blacks and Hispanics on tasks assumed to reflect natural sports ability (e.g., Stone, 2002); and
- young girls whose gender has been highlighted before completing a math task (Ambady, Shih, & Pittinsky, 2001). (list compiled within Stroessner & Good, n.d., and available on the Web — see resources)

This is a scary list! The research behind the list shows that some students may fail *not because they are incapable of high performance but because they believe those around them think they will not perform well.*

Consider this carefully. If your student thinks you believe students like her won't perform well on a task, even if she doesn't believe that about herself, she may underperform because she senses *you* believe the stereotype.

Holding all students to high standards and reinforcing to them your belief they can learn the material makes sense as a way of countering such students' potential underperformance.

A leading researcher about stereotype threat, Claude Steele, now at Stanford, relates the "Whistling Vivaldi" phenomenon (Steele, 2010). A black male graduate student in Chicago adopted the practice of whistling Vivaldi when walking down the street because he was aware Whites on the sidewalks stereotyped him as prone to violence simply because he was a black male. He knew this wasn't true about himself, but he also knew those around him thought it was true. Whistling Vivaldi was a tactic meant to change Whites' stereotypical assumption about him because they would assume he must be "cultured" if he knew Vivaldi's music. The tactic worked: Whites hearing him whistling Vivaldi relaxed which meant he could relax.

Or did he? The black graduate student had to deal with the added stress of knowing every time he walked down the street, he better have some Vivaldi or Beethoven or Mozart at the ready for whistling.

And he had to deal with the stress-disappointment-anger-frustration that others believed something about him that was not true because they stereotyped him.

"Whistling Vivaldi" was a coping mechanism borne of necessity.

Steele goes on to say that in certain places stereotype threat “can be very powerful, where there are a lot of cues that make one aware of one's identity and the contingencies that can be tied to it. That can make the experience of stereotype threat much worse” (Steele, 2010).

One such place is college. Dasgupta's research (2011) looked at stereotype threat among female students in engineering. A clever research design allowed her to test several things:

We systematically varied the gender composition of women in four-person engineering teams such that they were 25%, 50%, or 75% of team members and examined how it affected their appraisals of threat and challenge, actual participation in the team, and their career aspirations after team-work. Results revealed that women engineering students flourished most in teams with mostly female peers (female majority teams) compared to the other two teams. They felt most challenged and least threatened in female majority teams than the other two teams. They were also most likely to participate in the group problem-solving task in female majority teams than the other two teams. Women who demonstrated more knowledge of engineering during team-work expressed more interest in pursuing engineering careers after the team task if they had worked in female majority and female parity teams but not if they had worked in female minority teams, suggesting that interaction with same-sex peers plays a key role in converting domain knowledge and ability into future career aspirations. (pp. 237-238)

The inoculation effect was provided by peers on the female parity and majority teams.

Stereotype threat is a real barrier to academic performance. Numerous studies confirm this. What can faculty do to provide the vaccine?

As the above example illustrates, group-work team selection offers one opportunity. Others include:

- If you are a member of a group that faced academic stereotyping in your own career, share that experience and your success strategies with your students. Even if your stereotyped group isn't the same as the stereotyped groups in your class, the *lived experience* of overcoming the threat can be motivational for your students.
- Work in your department to increase representation among both students and faculty of potentially stereotyped groups. One finding that's common in research in this area is that engaging with others of the stereotyped group who are succeeding has a powerfully positive impact.
- Seek out the initiatives on our own campus to learn more and to contribute to the solution. Two great examples are this semester's Black Male Perspectives workshop series focused on helping faculty understand how we can improve the classroom experience for our Black male students, and this semester's “Shared

Practices in the Classroom: Privilege and Race” series led by faculty. (Both groups will continue Fall 2015 — watch for CETTL’s announcements about these initiatives.)

- Bring guest speakers to class — remember to include students! — who represent stereotyped groups. Also common in research on this topic are findings that indicate more exposure to, and engagement with, successful members of the stereotyped group helps “inoculate” against the threat.

We can help lessen stereotype threat if we’re aware of it and then consciously act to minimize it. As the Black Male Perspective discussions this semester helped reveal for faculty, *becoming aware* is a necessary first step.

References

- Dasgupta, N. (2011). Ingroup experts and peers as social vaccines who inoculate the self-concept: The stereotype inoculation model. *Psychological Inquiry*, 22, 231-246.
- Stroessner, S., & Good, C. (n.d.) Stereotype threat: An overview. Retrieved April 24, 2015, from http://diversity.arizona.edu/sites/diversity/files/stereotype_threat_overview.pdf
- Steele, C. (2010, April 12). “Whistling Vivaldi” and beating stereotypes. National Public Radio broadcast. Retrieved April 22, 2015 (including transcript) from <http://www.npr.org/templates/story/story.php?storyId=125859207>