

Reducing Stereotype Threat

Strategies for Instructors

Stereotype threat is a phenomenon in which a person's concern about confirming a negative stereotype can lead that person to underperform on a challenging assessment or test. This phenomenon has been demonstrated in laboratory research and in classroom settings, as well as in non-academic contexts (for the most recent review of this research, see Spencer et al., 2016). Stereotype threat can affect anyone, depending on the context, but students who identify with groups that are underrepresented in a field or at an institution may be especially vulnerable to its effects.

What can we, as instructors, do to reduce the potential impact of this "threat" and to create a fair learning environment for all of our students? The following suggestions are drawn from research on some of the interventions that have been shown to reduce or "defuse" the impact of stereotype threat on student performance. (For additional ideas and research, see for example, Killpack and Melon, 2016; Spencer et al., 2016; Walton, Cohen, and Steele, 2012.)

Promote a Growth Mindset about Intelligence

Foster a "growth mindset" by conveying the idea that intelligence is not fixed, but can change and grow incrementally, with practice and "exercise." (Dweck, 2008; Blumenstyk, 2016).

- Create a learning environment in which mistakes and missteps are valued as opportunities for learning. Encourage students to "think out loud," to ask questions, to embrace difficult problems, and to take intellectual risks. Model this disposition yourself by providing examples of challenging questions and problems that excite you about learning and scholarship.
 - Describe for students situations in which mistakes, missteps, and wrong turns have led to discovery and innovation in your field and—if you are comfortable doing so—in your own work. Hong and Lin-Seigler (2012) have found that learning about struggles faced by famous physicists increased students' interest in science and problem solving.
 - Prompt students to reflect on their work by asking questions such as "Who made an interesting mistake today?" or "Did you find any stumbling blocks or places where you struggled when you were writing this paper? How did you work through those difficulties?" (Dweck 2008)
 - If a student contributes an answer that is incorrect, follow-up with questions that will help the student explain their rationale and identify any "wrong turns" or missteps. Communicate often with your students about the usefulness of wrong answers—they help us to illuminate incomplete understanding and spur us on to learn more. Sometimes, moreover, what appears to be a wrong answer turns out to be an alternative way of correctly solving a problem or answering a question.
 - If you make a mistake in the classroom, or in an assignment you distributed to the class, correct the mistake as soon as you can. If a student's question pointed out that mistake, thank the student.
- When designing assessments in your class, include "low-stakes" quizzes, homework, and shorter papers and other assignments as well as higher-stakes tests, papers, and projects. Provide students

with an opportunity to receive feedback on their performance and to build knowledge and skills over time.

- Be careful to avoid assuming that a student's performance on an exam or assignment is evidence of "natural" ability (or lack of ability). When speaking with students who are not performing well in the course, avoid statements such as "some people have trouble with math [or writing] [or critical thinking]"; these statements can communicate the idea that intelligence is fixed and may also remind students of identity-based stereotypes. Instead, work with the student to identify areas where the student is struggling and 1-2 new strategies the student can use to improve in those areas (Rattan, Good, Dweck, 2012).

Provide Feedback that Motivates Students to Improve

- When commenting on student work, provide "wise feedback," which combines 1) assurance that you are providing critical feedback because you have high standards, 2) specific commentary indicating where the student's work does and does not meet the standards, and 3) confidence that students can meet those standards. This type of feedback has been shown to improve students' motivation and reduce students' perceptions of instructor bias (Cohen et al., 1999; Yeager et al., 2014).
- Articulate and share with all students the criteria you will use to evaluate their work. When appropriate, grade with rubrics or answer keys that promote fairness and transparency. Explain to students the rationale behind these criteria. For example, is the course designed to help students learn more advanced modes of thinking, problem-solving, or writing that are crucial to success in future courses, graduate-school entrance exams, or professional careers?
- Combine these high standards with opportunities for support that can help students when they are transitioning into more challenging curricula. Keep in mind that all students will not be equally aware of—or comfortable in seeking out—campus resources. Therefore, set aside time in class to talk about these resources during the first week of class, describe them on the course syllabus, and—when needed—in individual conversations with students. In addition, describe these resources on your syllabus or course webpage.
- Provide students with challenging feedback that identifies areas for improvement and expresses your confidence that they can learn new strategies for studying, writing, or solving problems. Trying to comfort students by, for example, telling them that you will give them easier problems, or call on them less often, has been shown to de-motivate students, while "strategy feedback" has been shown to increase students' motivation. Moreover, students perceive "comfort feedback" to be associated with a fixed mindset, while perceiving "strategy feedback" to be associated with a growth mindset (Rattan, Good, Dweck, 2012).

Foster a Sense of Belonging

When students learn that it is common to experience academic struggle and to be concerned that these experiences suggest that one does "belong" at the institution, they have improved academic and health outcomes compared with students who do not receive these messages (Walton and Cohen, 2011).

- You can improve your students' sense of "social belonging" by providing narratives written by students who initially struggled and questioned whether or not they belonged in the course or at the institution, but ultimately learned new study strategies and succeeded. Include narratives from diverse students, for example in terms of race, religion, gender, or nationality.
- As a second step, ask your current students to write their own narratives about a time when they have experienced academic challenges and ask them if you can share this narrative with future

students in the course. This act of writing their own stories of struggles and perseverance can help them internalize the message that academic struggle is common and, often, transient (Aguilar, et al, 2014).

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