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Defining Stereotype Threat and Why It Matters

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Abstract

Stereotype threat was coined by Dr. Claude Steele as a “socially premised psychological threat that arises when one is in a situation or doing something for which a negative stereotype about one’s group applies.” According to stereotype threat, members of a marginalized group acknowledge that a negative stereotype exists in reference to their group, and they demonstrate apprehension about confirming the negative stereotype while engaging in activities where their performance will be measured. Anyone can experience stereotype threat; however, in the field of orthopaedic surgery, stereotype threat is most likely experienced by racial and/or gender minorities. This article reviews salient literature related to stereotype threat and describes how to provide feedback to people who are experiencing stereotype threat.

Key Concepts

- As members of a society, we know the general idiosyncrasies and stereotypes of other members in the society who are different from us.
- People from all races, genders, and nationalities can experience stereotype threat.
- Persons experiencing stereotype threat are more focused on not confirming the negative stereotype about their group than the task at hand, resulting in underperformance.

Introduction

If you were shown this picture of an Asian female driving (Figure 1) and were asked to name a common negative stereotype about her group, what would you

say? You might say that a commonly known stereotype is that Asian females are not good at driving. In contrast, commonly known positive stereotypes about Asians,



Figure 1. What common negative stereotype comes to mind when looking at this photo of an Asian female driving?

in general, is that they are very smart. When viewing the picture of two Black men dressed in urban clothes (Figure 2), what common negative stereotypes come to mind about this group of people? Commonly held stereotypes include a proclivity to criminality and violence or an association with selling illegal drugs. Positive stereotypes about this group include athleticism, especially in basketball, football, and track. Finally, if you were shown the photo below of this older married couple, what negative stereotypes would come to mind (Figure 3)?

You might say that they likely have poor memory or that they have issues understanding modern technology



Figure 2. What common negative stereotype comes to mind when viewing this photo of two Black men dressed in urban clothes?



Figure 3. What negative stereotypes come to mind when shown the photo of this older married couple?

such as cell phones and social media while positive stereotypes may include an association with wisdom. All three of these examples highlight stereotypes about groups of people that are identified by race, gender, age, or a combination of both.

As members of society, we have a pretty good idea of what other members of our society think about everyone else—this makes stereotype threat real. In 1995, the term *stereotype threat* was coined by Claude Steele¹ as a “socially premised psychological threat that arises when one is in a situation or doing something for which a negative stereotype about one’s group applies.” According to stereotype threat, members of a marginalized group acknowledge that a negative stereotype exists in reference to their group, and they demonstrate apprehension about confirming the negative stereotype while engaging in activities where their performance will be measured. The care of children with musculoskeletal injuries and disorders often requires a multidisciplinary team, with each member of that team needing to perform at a high level to make sure the patient has an optimal outcome. If, however, a member of that team is experiencing stereotype threat, their performance will also suffer, thus leading to less-than-optimal patient care.

In 1999, Stone et al. designed an experiment using the game of golf to measure how stereotype threat was

manifested in students at Princeton University.² First, they took White Princeton students and divided them in half. They told the first group that the golf course was designed to test their athletic ability and they told the second group of students nothing. Both groups played the golf course, and their performance was measured afterwards. Interestingly, they found that the first group of students scored significantly lower than the second group. Next, they took Black Princeton students and divided them in half. They told the first group that the golf course was designed to test their athletic ability and told the second group nothing before they had them play the course. At the end of the experiment, there was no significant difference in the performance of the two groups of Black Princeton students. Finally, they took a different group of Black Princeton students and divided them in half. This time they told the first group that the golf course was designed to test their strategic thinking ability and they told the second group of Black students nothing. The first group of Black students played significantly worse than the second group. So, what happened? When it comes to sports, there is a commonly held negative stereotype that White people are not as athletic compared to Blacks and other minority groups. For the White Princeton students that were told that the golf course was designed to measure their athletic ability, they clearly had this stereotype in mind, and rather than focusing on the game, they focused on not displaying the stereotype, which in the end actually decreased their performance. In contrast, Black people have no negative stereotypes in sports, so when half of the Black Princeton students were told that the golf course measured their athletic ability, this had no effect on their performance. However, Black people are negatively stereotyped in regard to their intelligence; therefore, when the third cohort of Black students were told that the golf course measured their strategic thinking ability, it negatively affected their performance.

Stereotype threat has also been measured in people who fall into multiple stereotyped categories. Shih et al. set out to measure stereotype threat in Asian females from surrounding Boston universities by giving them a very

challenging math test.³ However, before these students took the math test, the researchers gave one group of students a demographic survey with questions that reminded the student about their gender, such as “Do you prefer to live in co-ed or single-sex dorms?”. They gave the comparison group of Asian females a demographic survey that asked more broad questions related to their preference for mobile phone companies. The first group of Asian female students got 43% of the math questions correct while the comparison group got 49% of the math questions correct. This difference was statistically significant ($p < 0.05$). The researchers then repeated the study with one group of Asian females getting a demographic survey that asked questions reminding them of their gender; however, this time the comparison group received a demographic survey reminding them of their Asian heritage with questions such as “What language do your parents speak at home?” or “When did your family move to America?”. The group of Asian females who received the demographic survey reminding them of their Asian heritage got 54% of the math questions correct, which was also significantly higher than the cohort that was prompted about their gender. There is a commonly known negative stereotype regarding females and their ability to understand and solve complicated math questions. Therefore, when the Asian female students were primed with a survey that reminded them of their gender, they started to experience stereotype threat and their performance suffered. In contrast, Asians as a race are positively stereotyped in their ability to solve math problems. So, when the demographic survey reminded the Asian females of their Asian heritage and not their gender, stereotype threat did not occur and thus their performance was not affected.

It is important to note that when a person is experiencing stereotype threat, there is a constant internal dialogue going on in their heads which causes them to live down to the negative stereotype that they are trying not to confirm. However, when this internal dialogue present in stereotype threat is combined with the external negative expectations and microaggressions that come from potentially biased faculty, fellows, chief residents, and staff, this produces a

recipe for significant underperformance and it may explain why the attrition rates for women and minority residents in orthopaedics are so high.⁴

Orthopaedic surgery still remains the least diverse specialty in all of medicine based on gender and race.⁵ In this setting, junior partners, fellows, and residents who are racial and/or gender minorities are likely to experience stereotype threat as they are asked to perform tasks in the operating room, emergency room, or clinic. One of our roles as educators is to help these surgeons get out of “their heads” and provide feedback in a way that neutralizes stereotype threat. It can be challenging when the feedback is to a colleague or trainee of a different gender and/or race. Fortunately, Cohen et al. designed a study to help educators provide enhanced feedback in these situations.⁶ The researchers, posing as teachers who were all White, took a group of Black and White Stanford students and asked them to write an essay. When the students turned in their essay, the researchers provided three different types of feedback to the students. In the first type of feedback, coined as “Unbuffered Criticism,” the students received critical comments about their essay with no additional comments. In the second type of feedback, the students received criticism that was buffered with some positive comments and a statement of the teacher’s high standards. In the final type of feedback, the students received critical comments along with a statement that the teacher had very high standards, but the teacher continued to add that he or she was confident that the students could produce work that reached or surpassed those high standards. Black and White Stanford students were then asked to rate how biased they felt the teachers were (Figure 4). Unsurprisingly, Black students rated the teachers as biased significantly more than White students if they received unbuffered criticism. However, when that criticism was combined with a statement of the teacher’s high standards and assurance that the student could reach that standard, the rating of bias dropped significantly lower than White students. Their study went on to also describe that the Black students had significantly more task motivation, compared to the

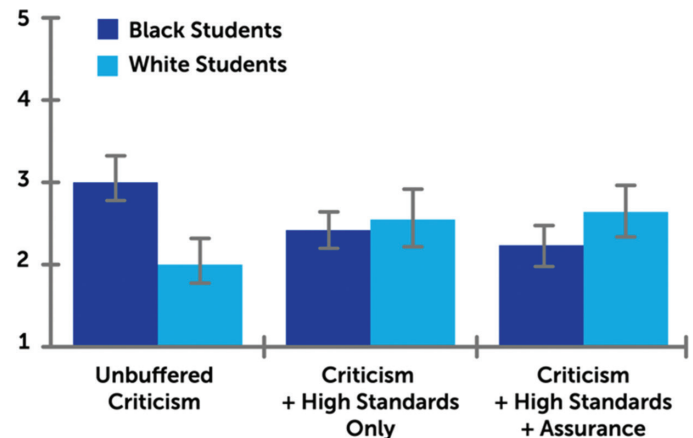


Figure 4. Ratings of bias as a function of race and feedback condition. Cohen GL, Steele CM, Ross LD. *Personality and Social Psychology Bulletin* (Volume 25, Issue 10).

White students, to revise their essays if they received the third type of feedback. As surgeons, we can use this study as a framework to provide the correct type of feedback to those that need it.

Summary

In summary, while stereotype threat has been described in people of all races and genders, in orthopaedics it is more likely to be found in racial and gender minorities. Stereotype threat is most prevalent when a person is attempting to perform a hard task and believes their performance will confirm a negative stereotype about their own group. This becomes a self-fulfilling condition, as the person experiencing stereotype threat focuses more on not confirming their negative stereotype than the actual task at hand. As their performance suffers, it is important to provide constructive feedback that includes an invocation of high standards and an assurance that they can reach those standards with time.

Disclaimer

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