Stereotype Threat in Academic Test Performance among Non-Native English Speakers

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Academic test performance is not simply a reflection of intelligence and knowledge but can be affected by common stereotypes. Research done in the academic settings has documented the negative effects of stereotypes on people who belong to a stereotyped social group, including self-evaluations and test performance. For example, research shows that mere reminders of racial stereotypes cause African Americans but not European Americans to exhibit doubt their own ability and to underperform on standardized tests (Steele & Aronson, 1995). Mere reminders of gender stereotypes cause politically conservative women to devalue their own work in dollars and cents and to underperform on a logic test but not a verbal test (Cheung & Hardin, 2009). Research like this suggests that it is difficult to not see oneself through the stereotyped lens of others.

In this experiment we extend stereotype threat research to non-native English speakers, a large and growing group in the United States that is known to be vulnerable to the stereotype that they are verbally deficient (e.g., Sinclair et al., 2006). The cognitive salience of the stereotype was experimentally manipulated by assessing test performance among non-native English speakers after they were reminded versus not reminded of the fact that English is not their first language. In order to provide a direct test that the effect is related to stereotypes specifically about verbal ability, the test participants took was labeled as either a “verbal” test or a “logic” test. In fact, all participants completed an identical Stroop color-naming task in which participants judge the color of each in a series of words as quickly as possible. Because American stereotypes about non-native speaker ability is on their verbal ability specifically, we hypothesized that stereotype salience would decrease performance only in the domain in which
non-native speakers are stereotyped as inferior (i.e., verbal skills) but not in the domain in which non-native speakers are stereotyped as equivalent or even superior (i.e., logic skills).

Method

Participants and Design

To examine the effect of language barrier reminder on test performance participants were randomly assigned to complete either a logic or verbal task either before or after they were reminded of their language barrier in a 2 (Language reminder: yes, no) x 2 (Task: verbal, logic)] between subjects factorial. The experiment included 55 non-native English speakers (26 male, 28 female, 1 unidentified).

Procedure and Materials

Participants were asked whether they would take part in the study to help with a psychology class project. Although the task was exactly the same for both groups, half of the participants received booklets labeled, “Stroop Logic Task,” and half received booklets labeled “Stroop Verbal Task.” The task was described as concerning “understanding various personal factors associated with logic (verbal) skills,” and “The task may be helpful to you by familiarizing you with some of your strengths and weaknesses in logic (verbal) skills.” Additionally, each booklet contained a page of questions involving the ability to speak, read and write in English. It included questions such as, “Do you find speaking English to be a pleasant experience?” and “How confident are you in your English reading abilities?” This page of questions was placed either before or after the Stroop test. In the Stroop task, participants judge the color of each in a series of color terms, many of which appearing in a different color ink than the color term. Participants were asked to circle the name of the color of the word, not the word that was typed there. For example, if the word “Green” was printed in red ink, the participant
would have to circle “red.” Participants were given 20 questions and 20 seconds in which to complete it. Before the test began, participants were given two examples of questions in order to demonstrate what was being asked of them. The number of questions answered correctly was our dependent variable.

Results

If non-native speakers’ academic performance is subject to the effect of stereotype threat, especially in a domain in which they are stereotyped to be inferior (i.e., verbal skills) but not in a domain in which non-native speakers are stereotyped as equivalent or even superior (i.e., logic skills), a mere reminder of language barrier should decrease non-native speakers’ performance in the verbal but not the logic task.

Did reminding non-native speakers of their language barrier affect their performance? As shown in Figure 1, there was a significant interaction effect between language barrier reminder and task, $F(1,51) = 7.20, p = .01$. When participants completed a “verbal” task, performance was lower when non-native speakers were reminded of their language barrier ($M = 8.8$) than when they were not reminded of their language barrier ($M = 10.93$), a performance decrement of almost 25%, $t(22) = 1.59, p = .06$ (one tail). However, when participants completed a “logic” task, performance was significantly better when they were reminded of their language barrier ($M = 11.47$) than when they were not reminded of their language barrier ($M = 8.75$), a performance improvement of over 30%, $t(29) = 2.27, p = .03$. Neither of the main effects was statistically significant ($F$s < 1).

Discussion

Results demonstrate that reminding non-native English speakers of their language barrier negatively affects their verbal task performance, although it improved logic task performance.
Apparently self-stereotyping is associated with costs (cf. Cheung & Hardin, 2009), although the same language barrier reminder might have elicited a form of compensatory motivations such that they felt they had more to prove in regards to their ability. As such, the common stereotypes shared within a culture appear to prepare its members to self-stereotype and behave in stereotype-consistent manners, and to do so even in a domain in which all are motivated to do well, that is excel academically.
Figure 1. Non-Native Speaker's Performance as a Function of Language Barrier Reminder and Task.
References

