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Social Identity and Academic Belonging: Creating Environments to Minimize the Achievement Gap among African American and Latino Students

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Abstract

Stereotype threat is a highly evident phenomenon that has been used to explain why minority groups underperform in academics compared to Caucasians (Steele, 1997; Steele, Spencer, & Aronson, 2002). This study examined whether an induced feeling of belonging (via information about potential), either in the academic or social domain, can attenuate the effects of stereotype threat on the academic performance of African Americans and Latinos. Results suggest that minority students who are told they have either academic potential or are not told any information about potential (i.e., control condition) perform similarly on an IQ test. However, when minority students are told they have social potential, a marginally significant decrease in performance is evident when compared to the academic potential and control conditions. At the same time, the performance of Caucasian students is not affected by information about potential.

Introduction

Humans are motivated to perceive themselves as good and virtuous, which makes it important that they view their social group as a valued part of society (Cohen, Garcia, Apfel & Master, 2006). Stereotypes are often used to make generalizations about characteristics of social groups, including the extent to which they are viewed as a valued group. When an individual perceives negative stereotypes about their social group, the fear of being devalued by society may be threatening to the individual.

Stereotype Threat

Stereotype threat occurs when an individual becomes overwhelmed with fear about confirming negative stereotypes about their social group (Steele, 1997; Steele & Aronson, 1995; Steele, Spencer, & Aronson, 2002). Often times, the fear becomes so intrusive, that it interferes with intellectual functioning, which leads to the individual actually confirming the very stereotype that they tried so hard to avoid (e.g., Steele & Aronson, 1995). This can create a negative feedback loop, such that every time the stereotype is validated, an individual’s concern about confirming that stereotype strengthens, which leads to a greater fear of confirming it again in the future (e.g., Steele & Aronson, 1995). It is assumed that such individuals will experience stereotype threat when the measure being used is relevant to the associated fear, when the domain being assessed is pertinent to the individual’s self concept, and the when individual identifies with the stereotyped group (Mayer & Hanges, 2003).

Effects of Stereotype Threat on Academic Performance

Stereotype threat has been robustly demonstrated amongst racial minorities in academics, because of the negative stereotypes society has placed upon the intellectual ability of their groups. Specifically, stereotype threat in academics is prominent amongst African American and Latino racial groups. For example, previous research has found that when such minority students are faced with a task that is explicitly said to be reflective of academic ability, they underperform on the task (Steele & Aronson, 1995). However, when minority students are given the same task, but it is not said to be indicative of academic ability, performance is raised. Simply describing the task as ability-based makes the negative stereotypes about minorities’ intellectual ability salient, which causes a fear of confirming this negative stereotype...
about their social group. However, this same decrease in performance is not evident among majority students, such as Caucasians, since no negative stereotypes about their intellectual ability exist to bring about stereotype threat.

When individuals feel that their negatively stereotyped social identity could be rejected by key figures in their social environment, it can trigger feelings of belonging uncertainty (Cohen & Garcia, 2008). It has been suggested that in both academic and professional settings, stereotyped groups feel an increased amount of belonging uncertainty (Walton & Cohen, 2007). Such uncertainty becomes even more problematic when minorities such as African Americans and Latinos see their groups underrepresented in academic situations. Past research shows that when a minority student was led to believe they had a low number of friends in a specific domain, it led to lower feelings of fit and potential in that domain (Walton & Cohen, 2007). Minority students who were led to believe they had a high number of friends in a specific domain felt higher feelings of fit and potential in that domain. When minority students felt that they had social connections within a specific domain, it led them to believe they belonged and were able to do well in that domain; however the opposite was true when minorities questioned their social connections to the domain. Overall, such research has shown that minorities question their social belonging, which leads to added social belonging uncertainty (Walton & Cohen, 2007).

**Positive Benefits of Belonging**

It has been suggested that social connectedness is a basic human motivation associated with better mental and physical health (Brown & Evans, 2002). Research has demonstrated that students who perceive themselves as having a social support network experience greater academic success (e.g., Brown & Evans, 2002). Specifically, feelings of connectedness to a student’s school have also been theorized as a major predictor of academic success, through decreased drop-outs rates and increased academic motivation and academic performance (Brown & Evans, 2002).

Particularly, extracurricular activities have been shown to be a primary factor to create feelings of academic attachment amongst students (Browns & Evans, 2002). It has been shown that inclusion in extracurricular activities can result in a higher amount of school connectivity by creating more positive academic experiences and a higher sense of belonging for minority students compared to majority students. In addition, extracurricular activities have been shown to foster better mental health for African American students (Bohnert & Garber, 2007). For example, lower levels of substance abuse and higher levels of self-esteem for African Americans have been linked with involvement in school clubs. Overall, feelings of both academic belonging through school connectedness and social belonging through involvement in pro-social activities have been shown to have positive benefits for minority students.

**Present Research**

As previous research shows, minority students who are aware of negative stereotypes about their academic potential are in danger of underperforming on an intellectual task due to the presence of such stereotype threat. Because the feeling of connection to one’s school has positive benefits for these students, this present study examines the application of such feelings of
connection on stereotype threatened minority students.

Specifically, this study examines two types belonging: academic and social. By inducing or not inducing feelings of belonging specific to these two domains for minority students (African American and Latino), this project examines how academic and social belonging (vs. no information about belonging) protect African Americans and Latinos from the effects of stereotype threat when completing a measure of intellectual performance—a domain in which it is clear that negative stereotypes about their group exist. Particularly, we hypothesized that African American and Latino students who are told that they possess potential in either academic belonging or social belonging would perform better on an IQ test than minority students who receive no information about their belonging potential. This would support the prediction that belonging—be it academic or social—attenuates the effects of stereotype threat for minorities, and subsequent performance decrement.

Method

Participants

Participants consisted of 89 undergraduate students who all voluntarily chose to take part in this study as an assignment for their Introductory Psychology course at the University of Illinois at Chicago. Forty-four of the participants self-identified as being either African American or Latino and 45 of the participants self-identified as being Caucasian ($M_{\text{age}} = 19$ years, $SD = 1.25$). This sample was comprised of mostly underclassmen (55 Freshmen, 18 Sophomores, 12 Juniors, and 4 Seniors). Out of this sample, 20 participants self-identified as male while 69 participants self-identified as female.

Procedure

Upon arrival to the lab, participants were instructed that they were taking part in a study that was being conducted by the University of Illinois Alumni Association (UIAA) to better understand students’ college experiences, as well as the effects of holding a piece of information in one’s mind while doing a subsequent task. They were informed that the study would be broken into two parts. For the first part of the study, participants were given a form that they were told contained personalized feedback from the UIAA that was determined by the participant’s individual responses to a questionnaire that he or she completed in their Introductory Psychology course. Participants were given three minutes to read their personalized feedback form. Next, participants were given three minutes to describe their feedback through a writing activity without referring to the feedback form itself. Once time was up, participants were told that they had completed the first part of the study, and that for the second part they would be taking part in an IQ test. It was explained that they would have twenty minutes to work through the items and to work as quickly but also as efficiently as possible. Participants were also instructed that they would be asked questions about their feedback at the end of the IQ test, so it was important to hold that information in their mind as they worked through the entire test. After completing the IQ test, participants answered follow-up questions. At the end of the study, participants were debriefed and compensated by receiving a one hour credit to fulfill a course requirement for their Introductory Psychology course.
Manipulation and Measures

Participants were randomly assigned to receive a feedback form about their academic potential \((N = 23)\), social potential \((N = 20)\), or they received no information about their potential (control) \((N = 26)\). No matter the condition, each of the feedback forms was one page in length. The feedback forms had the University of Illinois Alumni Association logo and information printed as the header and footer of the page. The participant’s individual identification number was also present as well.

The academic potential feedback indicated that based on the participant’s responses during a previous task, the participant had been shown to encompass academic potential and has the ability to do well scholastically. It described hobbies and characteristics of people at UIC who have also been shown to have academic potential. A sample from this condition is, “Overall, students at UIC who score in the range of academic potential, as you did, belong to a group of students on campus that is known for their involvement with various scholastic organizations at UIC.”

The social potential feedback indicated that based on the participant’s responses during a previous task, the participant had been shown to exhibit social potential, and has the ability to do well in social situations. It described hobbies and characteristics of people at UIC who have also been shown to have social potential. A sample from this condition is, “Overall, students at UIC who score in the range of social potential, as you did, belong to a group of students on campus that is known for their involvement with various social organizations at UIC.”

Finally, participants who were randomly assigned to the control condition read a feedback form that described the randomization of participants for studies that are used in their Introductory Psychology class. The control feedback was not meant to induce any feeling of belonging. A sample from the control feedback is, “Overall, students at UIC who have chosen to participate in PSCH 100 PEC’s are randomly assigned to a PIN. When participating in a study, these PINs distinguish PSCH 100 students, while not revealing any of their personal information.”

Ravens Progressive Matrices

The Ravens Progressive Matrices was used as the IQ test in this study. Because the Raven’s questions consist of nonverbal stimuli, they do not require a specific knowledge base for understanding (Brown & Day, 2006). As a result, this IQ test has come to be known as “culture free,” since it attempts to minimize the influence of factors which create irrelevant differences between cultural groups (Mayer & Hanges, 2003). Research also supports Raven’s as a valid measure of general cognitive ability. Participants were explicitly told that they would be taking an IQ test because such explicit instructions have previously been found to induce stereotype threat. Specifically, participants were given 20 minutes to complete 18 of the most difficult questions from the Raven’s. The complexity of the problems was meant to challenge minority participants that would lead to stronger concerns about their performance.

Manipulation Check. Participants were asked to recall what specific type of feedback they received. They were given three options of feedback types to choose from that reflected the three study conditions (Academic, Social, PIN assignment).
**Belongingness.** The sense of belonging scale (Murphy & Dweck, 2010; Murphy & Steele, under review) was meant to assess the level of belonging the participants felt after the belonging manipulation. The scale has been shown to be reliable, $\alpha = 0.73$. This measure was adapted to the UIC community, to be more applicable to the study. Participants responded to six questions using a seven-point 1 (not at all) to 7 (extremely) scale. One of the questions that participants responded to was, “How much do you feel like you belong at UIC?”

**Results**

A two-way analysis of variance (ANOVA) examined the effect that belonging condition and participant race had on participants’ performance on Raven’s. Participants who were not able to successfully identify the type of “personalized” feedback they received during the manipulation check were excluded from the analysis. ACT\textsubscript{Math} and Year in School were included in the analyses as control variables to isolate the effects of the manipulation. There was a main effect of ACT\textsubscript{Math} such that participants who had higher ACT math scores performed better on Ravens, $F(1, 68) = 14.97, p < 0.01$. There was a marginally significant main effect of Year in School such that the participants grade level was predictive of their performance on Ravens, $F(1, 68) = 3.26, p = 0.076$.

The predicted Race x belonging conditions interaction was not significant, $F(2, 68) = 2.08, p = 0.134$. However, the interaction indicated a pattern such that African American and Latino participants appeared to differ on their performance on the Ravens Progressive Matrices based on their belonging conditions. In contrast, Caucasian participants appeared to perform the same across all three conditions.

To statistically examine this relationship, we completed a series of pairwise comparisons to test if there were hypothesized differences between belonging conditions. There were no significant differences between the control and academic belonging conditions, for African American and Latino participants or for Caucasian participants. However, comparisons between academic belonging and social belonging revealed a marginally significant interaction between condition and race $F(1, 42) = 3.93, p = 0.06$. This interaction expressed a pattern where African American/Latino participants did significantly better on Ravens when they were told they had academic potential ($M = 5.54, SD = 2.57$) when compared to African American/Latino participants who were told they had social potential ($M = 3.83, SD = 1.72$) $F(1, 36) = 4.64, p = 0.038$. Again, Caucasian participants did not differ significantly on their performance when told to have either academic ($M = 5.6, SD = 3.34$) or social potential ($M = 5.79, SD = 2.61$) $F(1, 36) = 0.09, p = .766$. There were no significant differences between Caucasians and African American/Latino participants in academic belonging conditions or Caucasians and African American/Latinos in social belonging conditions. Overall, these results indicate that African American and Latino participants score lower on the Ravens when told to have social potential, but not when they are told to have academic potential or no potential. On the other hand, belonging did not impact the performance of Caucasian participants.
Discussion

This project examined whether inducing a feeling of either academic belonging potential or social belonging potential would reduce the normal deficit in performance for minority students (i.e., African American and Latino). Surprisingly, the results that were found are more interesting than our hypothesis predicted. The pattern of the results indicates that when minority participants were told they had potential in an academic domain or were told nothing about their potential, their performance on an IQ test was significantly higher than when minority participants were told they had potential in a social domain. In contrast, Caucasian participants did not differ in their performance on the test, regardless of whether they were told that they had academic potential, social potential, or were told nothing.

These findings support the idea that academic belonging and social belonging are not the same types of belonging. Instead, these types of belonging appear to have the opposite effects on minorities; whereas potential in the social domain lowered scores for African American/Latinos, potential in the academic domain did not. In other words, these results signify that it is not enough for a minority student to identify socially with their school. Instead, minority students must feel connected to the academic domain to begin to attenuate the negative effects of stereotype threat.

Interestingly, minority participants showed no evidence of stereotype threat in the control condition, as had been predicted. Even though the control condition’s feedback was meant to be neutral and not elicit any feelings of belonging, it very well may have inadvertently primed academic belonging since it did described an assignment in participants’ Introductory Psychology course. If so, it would explain why participants in the control and potential in academic belonging conditions were shown to have no differences on Ravens scores. Another fascinating pattern that emerged for minority participants is that African American/Latinos were trending to perform better than Caucasians in the potential in academic belonging condition. Based on the presence of stereotype threat, it would be predicted that minority students would underperform compared to majority students. Even though it was not a significant difference, this over performance for minorities, like the absence of threat in the control condition, is not typical of stereotype threat.

Overall, the type of potential a minority student feels they encompass has been shown to have a significant effect over their performance, whereas this same effect is not evident for Caucasian students.

Future Directions

As previously mentioned, the manipulation used in the control condition was not shown to have the typical results of a stereotyped condition. Because of this, it would be important for future research to use a different type of control to neutralize any indirect feelings of belonging that may have had an impact over the results.

This research project examined the effects of both academic and social belonging. However, a construct that is associated strictly with academics was used to assess the impact of the independent variables. It would be important for future research to better understand whether or not these types of belonging are affected by consistency between the domain of belonging elicited in participants and the
domain of the task participants are asked to complete. In the case of the current study, this could be done by using the same constructs, but instead of being called an IQ test, Raven's could be presented as a test of social ability. By doing this, it would help to shed more light on whether the belonging manipulation must be in a domain consistent with the domain of evaluation in order to attenuate stereotype threat.

In general, this project used past research to formulate a new way to reduce the amount of stereotype threat on minorities in academics, which is crucial to creating effective interventions. This novel research brought society one step closer to minimizing the achievement gap for minority students.

References


