

2009

The Impact of Stereotype Threat on the Academic Performance of International Students Studying in the United States

Michael Pelley

Follow this and additional works at: http://pilotscholars.up.edu/cst_studpubs



Part of the [Communication Commons](#)

Citation: Pilot Scholars Version (Modified MLA Style)

Pelley, Michael, "The Impact of Stereotype Threat on the Academic Performance of International Students Studying in the United States" (2009). *Communication Studies Undergraduate Publications, Presentations and Projects*. 43.
http://pilotscholars.up.edu/cst_studpubs/43

This Student Project is brought to you for free and open access by the Communication Studies at Pilot Scholars. It has been accepted for inclusion in Communication Studies Undergraduate Publications, Presentations and Projects by an authorized administrator of Pilot Scholars. For more information, please contact library@up.edu.

Running Head: Stereotype Threat

The Impact of Stereotype Threat on the Academic Performance
of International Students Studying in the United States

Michael Pelley

University of Portland

I understand that in the interest of shared scholarship the University of Portland and its agents have the non-exclusive license to archive and make accessible my thesis in whole or in part in all forms of media in perpetuity. Further, I understand that my work, in addition to its bibliographic record and abstract, may be available to a wider community of scholars and researchers through electronic access.

Abstract

Stereotype threat can be experienced by anyone who belongs to a group whose status is made relevant by situational features. This study examined the impact of stereotype threat on international students studying in the United States. It was hypothesized that international students reminded that they will underperform on an outcome measure will do just that as compared to international students not so reminded. Thirty-six international students from a small northwest private university participated in the study. Participants were divided into control and experiment groups. Results indicated no significant differences in performance between the two groups. The results of this study are discussed within the framework of stereotype threat and suggest further studies regarding international students and this phenomenon.

The Impact of Stereotype Threat on the Academic Performance
of International Students Studying in the United States

Claude M. Steele's stereotype threat hypothesis argues that in academic environments where negative stereotyping exists about certain groups, students who identify strongly with a particular group identity are more prone to experience stereotype threat and thus demonstrate negative outcomes in their academic performance (Steele, 1997). Stereotype threat research is a growing body of work since the concept was framed by Steele in the early 1990s. This phenomenon has improved understandings about why a person might experience anxiety, self-doubt, suppressed emotions, or negative outcomes in their schools or workplaces. By understanding stereotype threat, educators, managers, and team members can help create environments where individuals do not feel threatened by social mistrust, nor underperform on testing and other work.

The following study examines what has been written about identity and stereotype threat, formulates and tests a hypothesis regarding this subject matter, and discusses the results and findings in light of existing research and theorizing. The purpose of this study was to test whether international students operating under a stereotype threat condition would underperform as compared to similar students in a control situation.

International Student Experiences in the U.S.

Moving from secondary education to higher education can be a stressful endeavor for all students. Transitioning and adapting to new academic and social environments requires time and patience. Higher education for international students is even more stressful for those who must contend with a second or third language, a new culture, new academic values, and different expectations from professors and classmates. As stress increases social and academic life will be

impacted for the students that find it difficult to adjust, and readjust, or who do not seek available resources to help them cope with this period of their lives (Misra & Castillo, 2004).

International student populations have been growing in the United States for the past five decades. In the current 2008 Open Doors report from the Institute of International Education (IIE) 623,805 international students studied in the U.S. last year. That is a 7% increase in the number of foreign students from academic year 2006-2007. International students made up 1.6% of the total undergraduate population whereas international students comprised of 10.6% of the total graduate population studying in the in the United States (IIE, 2008). According to the Open Doors report representatives from eight of the top ten countries coming for study are from collectivists' cultures: India, China, South Korea, Japan, Taiwan, Turkey, Saudi Arabia, and Thailand.

International students coming for study in the United States have had access to quality education within their home country and have the ability to gather enough financial resources to afford multiple years of living expenses, paying tuition, buying textbooks, and paying for health insurance. Requirements of the U.S. Department of State (DOS) include enough English proficiency to complete the intended degree program. Proof of sufficient funds to cover the first year of study and living expenses is also mandatory (DOS Website, 2009).

To a degree, international students coming to the United States to study must adapt to the host culture in order to be successful. Individualism, competition, equality, informality, pragmatism, and logic are values in higher education in the United States (Robinson, 1992). These values often challenge international students coming from cultures that value the group over the individual. Relationships between professor and student, student and student, staff and student require more effort from an international student to adapt to than their American

counterpart (Wadsworth, Hecht, Jung, 2008). Stella Ting-Toomey and Leeva C. Chung (2005) define intercultural adjustment as, "...short-term and medium-term adaptive process of sojourners in their overseas assignments" (p. 123). This definition fits well with international students as sojourners whose stay is temporary in the United States.

International students often experience honeymoon, hostility, humorous, and in-sync adjustment stages (Ting-Toomey & Chung, 2005). For international students who are academically successful and reach that in-sync adjustment in the U.S., factors leading to their success include better time management, an ability to understand lectures, class discussions, and assigned readings (Stynoff, 1997). Additionally, adequate use of campus resources, attendance at orientation programs, access to technology, and campuses that promote multi-cultural awareness help international students identify with the universities and colleges they have chosen (Misra, Crist, & Burant, 2003; Zimmerman, 1995). And judging by numbers as reported in Open Doors, international students coming to the U.S for higher education are adapting to the higher education environment and experiencing success.

Blending in versus standing out. Identification with a new academic environment for international students takes effort and is important to achieve to be successful. International students come to the United States after much discussion with family members and friends, after taking many exams, gathering enough financial resources, and experiencing an intense student visa acquisition process. Once at their academic institutions, and during and after an acculturation period, most of these students' value academics and how they will perform in the classroom and therefore will strongly identify with the chosen college or university.

How international students manage their identity in an academic environment has consequences for their performance. In *Theories of Human Communication* Littlejohn and Foss

discuss Tadasu Imahori and William Cupach's Identity Management Theory. International students, with their professors and classmates, "...will negotiate acceptable mutual answers" (Littlejohn, Foss, p.204) concerning their relationships. In successful situations the international student's identity is included in the academic environment and as Young Yun Kim writes in William B. Gudykunst *Theorizing about Intercultural Communication* that, "...identification with a social group involves two key ingredients: first, that membership in the social group is an important, emotionally significant aspect of the individual's self concept, and second, that collective interest are of concern to the individual, above and beyond their implications for personal self-interest" (Kim, p. 332).

Osborne and Walker (2006) report that domain identification is rooted in "symbolic interactionists perspective on self-esteem" (Osborne & Walker, 2006). George Mead's theory of Symbolic Interactionism, as it is applied to this type of sojourn, helps explain international student identification to U.S. college and university classrooms (Littlejohn & Foss, 2008). The classroom is a cooperative society, the international student converses with his or her self about the society, and then interprets (minding) identity within the classroom. And as Osborne and Walker point out, "...domain identification should be related to motivation and outcomes in that domain" (Osborne et al., 2006). By this assertion motivated students in the academic environment should strongly identify with and experience positive outcomes within the domain, while students with low motivation should have a weak identification and be less productive within the domain.

The research presented thus far indicates that strong identification with the academic environment should increase an international student's chances of success in an academic domain, while a weak or lack of identification within the academic domain should do the

opposite. However, there is a particular kind of social mistrust that has been shown to burden only those students who are highly invested in certain aspects of their identity relative to the academic situation, while students without those identity investments are immune to its effects.

Stereotype Threat and International Students

Claude M. Steele defines stereotype threat as follows: “The event of a negative stereotype about a group to which one belongs becoming self-relevant, usually as a plausible interpretation for something one is doing, for an experience one is having, or for a situation one is in, that has relevance to one’s self-definition” (Steele, 1997). Jason Osborne (2007) in his paper “Linking Stereotype and Anxiety” further asserts:

“(1) stereotype threat is situationally-specific and not a trait of a group; (2) stereotype threat is a phenomenon individuals can experience if they are in a situation where there is a salient negative group stereotype concerning their performance in that domain and the domain is self-relevant; (3) experiencing stereotype threat is aversive, as subjects in these conditions show evidence of escape attempts; (4) acceptance of, or belief in, the stereotype is not a necessary condition; and (5) reducing stereotype threat improves the performance of members of the stigmatised group to the point where performance is often not substantially different from that of non-stigmatised groups once the background differences are controlled for” (p. 138).

So then how can stereotype threat negatively affect academic performance of the international student?

As mentioned earlier in this literature review international students come from different cultural backgrounds and learn to identify with the academic domain in which they study. Most of these students are not impeded by prior access to quality education or financial resources

which could influence the possibility of stereotype threat. However, domain identification does not come without its frustrations and difficulties, not least of which is the fact that others still may identify such students' actions as representing "international students" in general, leading to perceptions of stereotype threat. Individual international students who identify with their academic environment still may experience stereotype threat through faulty working memory in math courses depending how math equations and problems are presented to them and if they are required to verbalize their answers in the academic environment they identify with (Beilock, Rydell, McConnell, 2007). In classrooms where international students are asked to discuss with a group or with individual classmates culturally sensitive issues may experience spatial distancing by either themselves or their peers (Goff, Davies, & Steele, 2008). International students may experience increased anxiety levels and distress that tax their ability to control attention and thought processes if a stereotype threat is present (Schmader, Forbes, & Johns, 2008).

There are several possible explanations as to why international students may experience stereotype threat. Self related lower expectations could be a culprit for some international students (Osborne, 2007). Public speaking courses could impact a non native English speaking student who perceives that others in the domain may think less of their abilities based upon English language competence. This could very easily affect an international student's memory when giving speeches even though the student attended a top international school in their country where instruction was only in English. A Saudi male student could underperform in a math course he has already taken in high school if he perceives negative feelings towards Arabs by Americans every time he enters the classroom. Steele would argue that this student is paying an

“extra tax” in the domain with increased anxiety or pressure, requiring of the student more effort to perform, thus having an impact on his academic performance (Steele, 1999).

In summary, the literature shows that students who identify strongly with an academic domain should perform well academically; students who have a weak identification with the domain generally should underperform in their courses. International students who strongly identify with the academic domain may underperform academically where a stereotype threat exists if they feel they also bear the burden of representing their ‘international student’ identity among their peers and teachers. Domain identifying students may suffer from increased social mistrust, which may directly impact performance. Those international students who have little investment in representing their ‘international student’ identity in their academic setting should not experience the performance impediments associated with stereotype threat.

Rationale

In education it is believed that students who place a high value on their academics and put forth the effort to succeed will do just that. Yet, studies have shown certain students find themselves aware of negative stereotypes about people supposedly like them, which can bring about negative outcomes in their academic performance (Beilock, et al., 2007; Osborne, 2007; Steele, 1997, etc.). This study examined stereotype threat and its potential impact on international students’ academic performance while studying in the United States.

Like U.S. students moving from secondary to higher education, international students experience stressors that come with an increased academic load, making new friends, and adapting to a new environment. Mirsa and Castillo (2004) explain that for international students higher education is even more stressful for those who are contending with a second language, new culture, and new academic values. Ting-Toomey and Chung (2005) point out that by using

short-term and medium-term adaptive processes international students can make an intercultural adjustment to the new host culture. Stynoff (1997) and Zimmerman (1995) indicate that utilizing campus resources, attending orientation programs, accessing technology, and choosing schools that promote multi-cultural awareness help further international students to overcome the stressors and identify with their chosen university or college. And as Osborne and Walker (2006) claim, "...domain identification should be related to motivation and outcomes in that domain" (p. 564). Therefore motivated international students in the academic environment who strongly identify with the domain should experience positive outcomes.

Yet it has been established that women in mathematics and sciences as well as African Americans in higher education that find the academic domain relevant and identify with the environment have experienced stereotype threat (Schmader, et al., 2008; Steele, 1999). Goff, et al. (2008) also claimed stereotype threat exists in interracial contexts as well. Since it can be established that international students identify with the academic domain in the U.S, and they can be classed as a specific group by the U.S Government, by their enrollment status at a university or college, and their ethnic/cultural background then it supposes they can experience stereotype threat from their peers, instructors, and administrators. Since there is little scholarly work about the effects of stereotype threat on international students, this study examined that phenomenon: H1 – International students who are reminded that their group is likely to underperform will perform worse on an outcome measure than will international students who are not so reminded.

Method

Participants

Thirty-six international students from a small northwestern private university participated in the study. The sample consisted of international students who only spoke English as a second

or third language. International students were recruited from both the graduate and undergraduate schools and represented each college within the university: nursing, business, engineering, education, and art and sciences. Participants came from nineteen different countries. Twenty-four of the participants were undergraduate students and twelve were graduate students. The range of time participants were enrolled at the university was three to seventy-two months. Nineteen percent of the participants have been enrolled at the university for seven months. Thirty-three percent of the participants have been enrolled for at least twenty seven months and ten percent have been enrolled for thirty-six months or more.

Procedures

Based on procedures approved by the university institutional review board, participants were recruited through email, telephone calls, and by face to face interaction. A classroom was reserved for the study and ten separate twenty minute slots were made available to participants to sign up. Each twenty minute slot was secretly devoted either to the control or experimental condition. Participants were randomly assigned to either a control condition or an experimental condition depending on when they agreed to come. Six students who were unable to meet for the prearranged time slots were allowed to schedule a separate time to meet in a conference room for the study. Participants were told the study would take twenty minutes of their time and that their participation was confidential and voluntary. Upon conclusion of the study participants were debriefed by the experimenter and encouraged to ask questions about the study.

Measures

Academic Environment Identification. A five-item identity scale academic environment survey was given to both condition groups. Academic environment identity was measured using items derived from Ting-Toomey et al.'s (2005) Assessing the Degree of Importance of Your

Cultural Identity and Marginal Identity. The original Ting-Toomey scale was designed to assess the degrees of importance of cultural identity and marginal identity. The scale ranged from one to four with one meaning “strongly disagree” and four meaning “strongly agree”. The scale was revised by substituting the words “US culture” with “UP academic environment” in order to measure academic environment identity. The resulting scale consisted of five items designed to measure the frequency of academic environment identification of international students’ which were (1) importance, (2) value, (3) comfort, (4) reflection, and (5) definition. This scale assessed degree of identification with the university’s academic environment.

Word Tests. Two word tests were given to all participants. The tests were chosen based on the reasoning that nonnative English speaking international students might perceive a negative stereotype regarding their English language ability to perform well on words tests in English. The first test was called Boggler. A four by four matrix filled with random letters was given to each participant. The objective was to form words by concentrating on adjacent letters. Letters that are to the left, right, on top, bottom, or on a diagonal to each other were acceptable and words created must be at least three letters long. Participants were instructed that this was a warm up test, to read the directions, and to ask question for clarification. Participants then had two minutes to create as many words as possible. The purpose for this warm up test was to get participants to think about creating words from a variety of letters.

The second test administered to the participants was called Words in Words. The objective was to find as many words contained in the given word as possible within a ten minute time frame. Letters need not be adjacent to each other to form a new word. Words needed to be at least four letters long to be acceptable. Proper nouns did not count. Duplicate words did not count. Participants were instructed to read the directions. Instructions for the test were reiterated

to both conditions for further clarification. However, in addition to the clarification of instructions the experimental group was told that native English speakers, when taking this type of test, always score higher than nonnative speakers. By adding this extra language a stereotype threat condition should have been established for the participants in the experimental condition. The control group was not given this extra language.

Results

To help affirm a presumed condition of the study, descriptive statistics were calculated to show the respondents' degrees of identification with the university environment (see Table 1). Those scores overall indicate that these participants did tend to identify with their academic environment. An average eighty-seven percent of the participants either moderately agree or agree or strongly identify with their academic environment.

Words in Word Test

A T-Test examined differences between how many actual English words were created by the control and experimental groups. The T-Test showed no significant differences between the word test performances of the two groups, $t = 1.34$, $p = .188$, $m = 3.94$, $se = 2.93$. Results of this analysis did not confirm the hypothesis that students under this threat condition would underperform relative to the students not so reminded.

Discussion

The hypothesis tested for this study was, in general, that students reminded that their group is likely to underperform will produce fewer words in the word puzzle than students not so reminded. This hypothesis was not supported. Mirsa and Castillo (2004) point out in their study which compared academic stress among American and international college students that the literature they researched indicated that international students tended to, "...somaticize feelings

of stress..” (p.144). This current study shared similar results as the Mirsa study which claims that their study showed no statistical differences between Americans and international students experiencing academic stress. The current study found no evidence of psychological (or physical) withdrawal in the test results between the control and study groups.

Two factors may contribute to the results of this study. First, participants in this group might have identified more strongly with their social and or academic identity than an attributed cultural, national, or international identity, thus influencing the results. McGlone and Aronson (2007) argued that, “...contemplating positive achieved identities one possesses can mitigate the threat of negative stereotypic expectations associated with an ascribed identity” (p.128). Second, Schmader, Johns, and Forbes point out that constantly dealing with negative stereotypes about one’s abilities, self-doubt, and continuous stress can directly impact performance in an academic environment. As noted and implied earlier in this study international students have the means and support to come to the U.S. to pursue higher education. In their home countries these students belong to the upper socio-economic class and more often belong to the majority as well. It is quite possible that several of the participants have never contended with negative stereotypes or self-doubt based on group membership. This may have contributed to the non-significant differences found between the groups in this study.

These findings then do not seem to directly support Steele’s argument that in academic environments where negative stereotype exists about certain groups, or in this case that certain groups reminded that they will likely underperform, students who strongly identify with their academic environment and perceive that this threat is attributed to them, will demonstrate negative outcomes in their academic performance. Nonetheless, methodological limitations prevent this study from subverting Steele’s stereotype threat hypothesis.

Limitations

This study has several limitations. First, the word puzzle chosen for this study may have its own influence on both conditions. It is possible that not all of the participants cared for or were familiar with puzzles of this sort. Or, some of the participants in both groups may have experienced anxiety because they can never perform well with this type of puzzle. Others may not care for this type of puzzle and therefore put little effort into creating new words from the given word. In either case this study may not have measured “performance” as well as it could have done.

Second, there could have included a type of measurement scale that indicated if the study group experienced any anxiety during the word test. Both groups clearly indicated that the majority of participants either identified or strongly identified with the university’s academic environment. An indication if participants felt any anxiety during the study may have contributed to the findings, if only to rule it out as stereotype threat theory suggests.

Third, the relationship between the participants and the administrator of the study was familiar. All participants knew the administrator as this person is also an advisor to them. There may have been a subjective bias for the participants thus nullifying any kind of threat condition.

Fourth and most important, along with the academic environment identity scale another scale should have been used to measure the degree to which a participant identified with being an international student. This would have allowed assessment of a key condition mandated by stereotype threat theory.

Fifth, this study used an identification scale that measured one’s identity with an academic environment. As Osborne and Walker (2006) point out that identity and academic environments are a circular relationship. These authors state, “...the level of identification with

a domain responds readily to outcomes in that domain,” and, “...outcomes in a domain respond to the level of individual identification” (p.574).

Last, a total number of 36 participants participated in this study which was also was a convenience sampling. It would be desirable to test a larger population of international students to test the hypothesis more fully. This number is too few to accurately gauge if a threat actually existed given the aforementioned limitations and findings.

Future Implications

Taking into consideration the limitations of this study, there are future implications to consider. Creating a puzzle or test that has a realistic measurable variable for both conditions to be measured against may change the findings of this study. By increasing the number of participants and using a neutral administrator this study may eliminate any social desirability bias.

Finally, the technique used to test for stereotype threat for this study is promising. Refining the tests and taking into consideration the limitations noted in this study, replication is encouraged. The findings of a future study could contribute to better understanding for faculty and student life personnel for better understanding of the growing numbers of international students in the United States. It also would contribute to the growing literature on stereotype threat experienced by students.

References

- Beilock, S., McConnell, A., Rydell, R., (2007). Stereotype Threat and Working Memory: Mechanisms, Alleviations, And Spillover. *Journal of Experimental Psychology*, 136, (2), 256-276. DOI: 10.1037/0096-3445.136.2.256
- Department of State Website. United States Embassy. New Delhi. URL: <http://newdelhi.usembassy.gov/nivfjm.html>, Retrieved February 27, 2009
- Goff, P., Davies, P., Steele, C., (2008). The space Between Us: Stereotype Threat and Distance in Interracial Contexts. *Journal of Personality and Social Psychology*, 94, (1), 91-107. DOI: 10.1037/0022-3514.94.1.91
- Kim, Y., (2005). Association and Dissociation: A Contextual Theory of Interethnic Communication. In W. Gudykunst (Ed.), *Theorizing About Intercultural Communication* (323-349) . Thousand Oaks: Sage Publications.
- Littlejohn, S., & Foss, K., (2008). *Theories of Human Communication (9th ed.)*. Belmont: Thompson/Wadsworth.
- McGlone, M., Aronson, J., (2007). Forewarning and Forearming Stereotype-Threatened Students. *Communication Education*, 2, (2), 119-133. DOI: 10.1080/0363520601158681
- Misra, R., & Castillo, Linda (2004). Academic Stress Among College Students: Comparison of American and international Students. *International Journal of Stress Management*, 11, (2), 132-148. DOI: 10.1037/1072-5245.11.2.132
- Misra, R., Crist, M., & Burant, C., (2003). Relationships Among Life Stress, Social support, Academic Stressors, and Reactions to Stressors of International Students in the United States. *International Journal of stress Management*, 10, (2), 137-157. DOI: 10.1037/1072-5245.10.2.137
- Osborne, J., (2007). Linking Stereotype threat and Anxiety. *Educational Psychology*, 27, (1), 135-154.
- Osborne, J., & Walker, C., (2006). Stereotype Threat, Identification with Academics, and Withdrawal from School: Why the most successful students of colour might be most likely to withdraw. *Educational Psychology*, 26, (4), 563-577.
- Robinson, Jennifer, (1992, October). *International Students and American University Culture: Adjustment Issues*. Paper presented at the Washington Area Teachers of English to Speakers of Other Languages (WATESOL) Annual Convention, Arlington, Va
- Schmader, T., Forbes, C., Johns, M., (2008). An Integrated Model of Stereotype Threat Effects on Performance. *Psychological Review*, 115, (2), 336-356. DOI: 10.1037/0033-295X.115.2.336

- Steele, C.M., (1997). A Threat in the Air: How Stereotypes Shape Intellectual Identity and Performance. *American Psychologist*, 52, (6), 613-629.
- Steele, C. M., (1999, August). Thin Ice: "Stereotype Threat" and Black College Students. *Atlantic Monthly* 248: 44-55.
- Stynoff, S., (1997). Factors Associated With International Students' Academic Achievement. *Journal of Instructional Psychology*, 24, (1), 56-68. Retrieved March 3, 2009, from PsychINFO
- Ting-Toomey, S., & Chung, L., (2005). *Understanding Intercultural Communication* (1st.ed.). Los Angeles: Roxbury Publishing Company.
- Wadsworth, B., Hecht, M., & Jung, E (2008). The Role of Identity Gaps, Discrimination, and Acculturation in International Students' Educational Satisfaction in American Classrooms. *Communication Education*, 57, (1), 64-87.
DOI:10.1080/03634520701668407
- Zimmermann, S., (1995). Perceptions of Intercultural Communication Competence and International Student Adaptation to an American Campus. *Communication Education*, 44, 321-335. Retrieved February 25, 2009, from Communication & Mass Media database.

Appendix

Table 1: Academic Environment Identity Score

Score	n in Study Group	n in Control Group
11-12	0	2 (11%)
13-14	2 (11%)	2 (11%)
15-16	4 (22%)	5 (27%)
17-18	8 (44%)	6 (33%)
19-20	4 (22%)	3 (16%)

Possible scores ranged from 5-20. Score is segregated by: 1 = Strongly Disagree, 2 = Moderately Disagree, 3 = Moderately Agree, 4 = Agree, The higher the summed score, the more the student identifies with the academic environment