



# The Effects of Self-Handicapping and Stereotype Threat

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## Introduction

- Stereotypes play an important role in the lives of many minorities which ultimately contributes to both social and emotional distress
- Stereotype threat occurs when members of a negatively stereotyped group are reminded of the stereotype
  - The mere chance that this stereotype may be true, whether one believes it or not, puts them at risk of performing below their actual ability (Steele & Aronson, 1995)
- Highlighting race or the possibility of bias can create stereotype threat conditions by inducing activation of a person's stereotype, whereas highlighting the lack of bias can reduce the activation of a relevant stereotype and make stereotype threat less likely to occur
  - However, further investigation is necessary to understand other possible factors that can attenuate the effects of stereotype threat
- Self-handicapping behavior serves as a defensive strategy that is often used in response to various sources of self-threat
  - Self-handicapping is conceptualized as the intentional hindrance of one's performance on a task to provide a possible explanation for one's success or failure (Higgins & Hattis, 1988)
- It is possible that the detrimental effects of stereotype threat can be mitigated when a self-handicapping strategy is employed

## Purpose

- To understand the psychological experiences that occur when there is an opportunity to self-handicap during conditions of stereotype threat
  - Specifically, we seek to explore if people under high or low stereotype threat conditions differ in their likelihood of evaluating lower personal resources while taking a test when they are either provided with an opportunity to self-handicap or not
- To assess responses during the test, we applied the biopsychosocial model of challenge/threat (BPS; Blascovich, 2008; Blascovich & Tomaka, 1996) and measured cardiovascular responses
  - Cardiovascular responses are independent of conscious reflection and self-report
  - Provides insight into experience *during* performance and thus does not rely on measurement administered only before or after the task of interest

## Biopsychosocial Model of Challenge and Threat

- Evaluations of demands and resources determine the extent to which a relatively positive motivational state (challenge) versus a negative state (threat) is experienced during a motivated performance situation (goal relevant situation that requires active coping in which one must act instrumentally to achieve a self-relevant objective, i.e., active goal pursuit)
- A constellation of cardiovascular responses differentiates challenge from threat

- *Challenge* occurs when personal resources meet or exceed situational demands
  - Increase in heart rate (HR) from resting baseline - heart beats faster
  - Increase in ventricular contractility (VC) - heart beats harder
  - Decrease in total peripheral resistance (TPR) - arteries dilate
  - Increase in cardiac output (CO) - heart pumps more blood
- *Threat* occurs when situational demands exceed personal resources
  - Like during challenge: increase in HR and VC
  - Unlike during challenge:
    - Increase in TPR
    - Decrease or no change in CO

## Method

### Participants

- Will be approximately 70 African-American undergraduates at the University at Buffalo
  - Data collection is ongoing but will be complete by the end of spring 2011; over 30 participants have completed the study so far

### Procedure

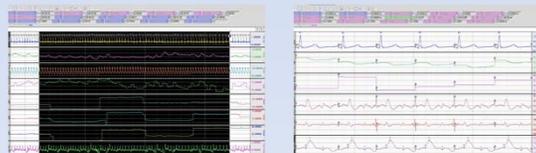
- Sat for a 5-minute resting baseline after physiological sensors were attached
- Heard that they were about to take a difficult version of the GRE test
- Were told that the test was either race biased (high stereotype threat) or race fair (low stereotype threat)
- Were told either the color of the screen was distracting or were told nothing about the screen (although the screen was yellow in both conditions)
  - A perceived distraction during the test should create a handicap for performance
- Took a 20-item test while physiological responses were measured

### Dependent Variables

- Cardiovascular reactivity markers of challenge/threat
- Performance on the test

## Predicted Results

- Data is currently being collected and will be scored and analyzed when complete



- Index scores combining TPR and CO will be created to produce a standardized index score of challenge/threat (higher values indicate greater challenge)
- Using an analysis of variance (ANOVA), the interaction between the two manipulated conditions will be examined

## Hypotheses

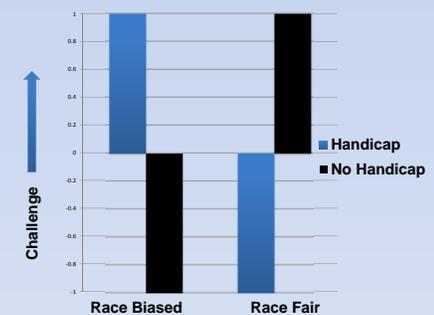
### Race Biased Condition

- Should create high stereotype threat, which in previous research (Vick, Seery, Blascovich, & Weisbuch, 2008) has led to a **threat** response
  - Consistent with previous findings, it is expected that participants will exhibit a **threat** response when there is no handicap due to low evaluated resources (i.e., unmitigated stereotype threat)
- However, participants will exhibit a **challenge** response when there is a handicap present because there is something to blame their poor performance on

### Race Fair Condition

- Should create low stereotype threat, which in previous research (Vick et al., 2008) has led to a **challenge** response
  - Consistent with previous findings, it is expected that participants will exhibit a **challenge** response when there is no handicap due to high evaluated resources
- However, participants will exhibit a **threat** response when there is a handicap present because there is now an unhelpful obstacle preventing them from performing well rather than a useful excuse

## Anticipated Findings



## Implications

- The present study hopes to further our understanding of the situations under which stereotype threat is more likely to have a negative impact on students
- The results of this study can potentially help gain better insight into a possible buffer to the detrimental effects of stereotype threat
- In doing so, this line of research can aid in the development of constructive strategies for students who are not performing up to their potential on tests of ability