

STEREOTYPE THREAT AND THE ROLE FRAGILE SELF-ESTEEM PLAYS IN
SELF-HANDICAPPING

by

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(Under the Direction of Victoria Plaut)

ABSTRACT

The current study investigated the consequences of stereotype threat on self-handicapping in the context of an athletic task. Eighty-three participants completed two packets of questionnaires and performed a golf task under one of two conditions. It was hypothesized that White participants (n=66) with fragile self-esteem (i.e. high global self-esteem, high contingency, and high instability) would experience greater self-handicapping when in the threat condition where the task was framed as a test of an individual's "natural athletic ability." A significant three-way interaction, level of self-esteem by contingency by condition, was found to support this hypothesis thus implying the use of behavioral self-handicapping as a defensive mechanism in the threat condition. A second three-way interaction indicated that those with high global self-esteem and high instability when in the threat condition predicted they would do well thus suggesting more confidence and possibly overconfidence in their ability. The implications of both interactions are discussed.

INDEX WORDS: Stereotype threat, Fragile self-esteem, Contingent self-esteem, Instability of self-esteem, Self-handicapping

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DEDICATION

This thesis is dedicated to Dr. Michael Kernis who accepted me into this program. His genuine love of research will never be forgotten and will continue to inspire me in my own research.

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CHAPTER 1

INTRODUCTION

We live in a society that has become obsessed with performance capabilities. It seems like there is a performance factor in most aspects of our lives. We strive for excellent performances in the classroom, in athletic events, in our careers, and in other domains. What happens when we are asked to perform at a high level but first we are made aware of the fact that we could underperform due to our race or gender? What happens if we are in a situation where we know we will not be able to perform up to the standards set by someone else? How do we protect ourselves from that potential overwhelming feeling of disappointment if we fail? Does having unstable self-esteem make us more likely to deploy these protective strategies? This paper attempts to address these questions by examining the use of self-handicapping, an ego-protecting defensive mechanism, in response to stereotype threat, and whether people with fragile self-esteem are more prone to using this mechanism.

Stereotype threat

Stereotype threat is described as the risk of confirming a negative stereotype about one's group (Steele & Aronson, 1995). Initial research on this phenomenon investigated the presence of stereotype threat in African American students performing intellectual tests. Research finds that when individuals targeted by a negative stereotype are made aware of the negative stereotype associated with their intellectual ability, those students tend to underperform compared to students not targeted by such negative stereotypes.

This theory of stereotype threat has been replicated with different groups in a number of different domains. For example, when a math test is framed as being used to determine gender differences, women are at risk for confirming the negative stereotype and that risk then leads to underperformance (Spencer, Steele, & Quinn, 1999; Schmader, 2002). We see this in academic diagnostic tests as well. If an individual from a poor social class is tasked with an intellectual diagnostic test that is framed as an indicator of intellectual ability we will see underperformance (Croizet, Désert, Dutrévis, & Leyens, 2001).

Stereotype threat also enters the athletic setting. One negative stereotype in athletics is that White athletes lack natural athletic ability (think of the movie 1992 movie *White Men Can't Jump*). Stone, Lynch, Sjomeling & Darley (1999) observed that the consequences of stereotype threat occur in athletic performance as well. White athletes underperformed in athletic tasks when threatened by the negative stereotype. As with the previous research on stereotype threat, once the threat is removed the effects no longer remain; therefore this is not a lack of ability to perform but rather a psychological barrier preventing performance from its true potential.

Stone (2002) expanded on the previous findings on White athletes by using a similar procedure as Stone et al. (1999) to investigate the presence of potential countermeasures used by participants when in the threat condition. The athletic task was a golf task performed in a lab setting framed either as a test of “natural athletic ability” (the threat condition) or as a test of “sport psychology” (non-threat condition). After hearing the instructions for the test participants were then allowed to practice for as long as they wanted. When they indicated they were ready to take the test, the experimenter told the participants that they study was in fact complete; therefore performance was not measured in this study. The focus instead was on the duration of the

practice session. White athletes in the threat condition practiced significantly less than white athletes who were not threatened thus exhibiting self-handicapping.

Self-handicapping

Stone (2002) suggests the presence of self-handicapping as a defensive mechanism. His research found that White individuals who were threatened by a negative stereotype about their natural athletic ability practiced less before performing an athletic task, and thus protected themselves from negative self-esteem relevant consequences for poor performance. Self-handicapping is described as setting one's self up to have an excuse for a potentially poor performance (Berglas & Jones, 1978). Self-handicapping can be seen in behavioral actions or claimed in one's verbal excuses (Leary & Shepperd, 1986). In both cases the result is that the individual has the ability to shift the focus of the poor performance to the self-handicapping excuse (Feick & Rhodewalt, 1997; McCrea & Hirt, 2001; McCrea, 2008).

In the context of an athletic task behavioral self-handicapping could manifest in several ways. One of these ways might involve decreased time spent practicing prior to an athletic task. For the prospective self-handicapper, less practice would represent to themselves and others a legitimate excuse for poor performance. The idea here is that having an excuse to explain the poor performance allows individuals to protect their self-esteem and self-worth from damage.

Fragile self-esteem

Stone (2002) found behavioral self-handicapping with a specific sample of White participants, namely those who considered their self-worth to be engaged with sport performances as opposed to disengaged and thus not related to sporting events. Perhaps though there is a more general population that is at an even greater risk of suffering from the effects of stereotype threat. If someone's self-worth was contingent upon good performance then it should

follow that this person would be most vulnerable in situations described above. Individuals with fragile high self-esteem are described as having high self-esteem that is dependent upon the given situation and unstable self-esteem (Kernis, 2005; Kernis et al, 2008). These individuals are expected to score high on global self-esteem measures, and high on contingency and instability measures. Those with fragile self-esteem who are then threatened by this potential of confirming a negative stereotype may not only experience a greater sense of risk in performance contexts due to stereotype-relevant concerns but also due to the added risk of suffering decrements to their self-esteem. The question then is to investigate how these individuals protect themselves from the negative results of underperformance when threatened by the stereotype about their group. The current study attempts to extend the previous findings by showing that those with fragile, as opposed to secure self-esteem are more likely to suffer from the negative effects associated with stereotype threat.

Overview and Hypothesis

The current study investigates the White athlete stereotype of poor natural athletic ability further and investigates the role of fragile self-esteem in self-handicapping when individuals are threatened with the risk of confirming a negative stereotype about their group. My hypothesis is that individuals with fragile self-esteem will experience greater self-handicapping when in the threat condition than those with secure self-esteem.

CHAPTER 2

METHOD

Participants

There were 83 participants (60 females) who were all psychology students enrolled in a general research pool from the University of Georgia. Students received credit for the current psychology course in which they were enrolled for participating in the study. IRB approval was given before starting the study and informed consent forms were signed by all of the participants before beginning the experiment. For the analyses only the 66 participants (49 females) who identified themselves as Caucasian were included.

Procedure

The procedure used in the present study was adapted from Stone et al. (2002). Participants were asked to complete an initial packet of questionnaires before being introduced to an athletic task titled the Texas Athletic Aptitude Task (TAAT; described below). After receiving the task instructions participants completed a second packet of questionnaires before completing the athletic task. Once done with the task, participants were thanked and debriefed.

This experiment required some deception. To prevent the potential for experimenter bias, two experimenters were used. The first experimenter's task was to introduce the participants to the study and to deliver the manipulation. The second experimenter would then lead the participants through the actual athletic task. When the participants arrived for the experiment the first experimenter greeted them. They were told that they would complete a few questionnaires and then would be involved in an athletic task. After completing the first set up questionnaires

they were then told about the “Texas Athletic Aptitude Test” (TAAT). As with Stone’s 2002 procedure, the participants were told that this test was developed and implemented at the University of Texas’ Exercise and Sport Psychology Department (the only difference here was that Stone’s was University of Michigan). Participants were asked to look through this packet closely and to pay attention to the objective. The experimenter then reread the objective to the participants, which was dependent upon the condition to which the participants were randomly assigned. Participants were either assigned to the threat condition in which they were told the task would test their natural athletic ability or to the non-threat condition in which they were told the task would test their ability to think strategically during an athletic task (see “Stereotype-threat manipulation”). At this point the experimenter indicated that she was going to check on the second experimenter in the next room to see if the task was ready to begin. The first experimenter returned and said that it would be a few more minutes and then asked the participant if he or she would mind filling out a second set of questionnaires while they waited for the second experimenter to finish setting up the task. Participants were told that the second set of questionnaires was for another graduate student’s experiment. When the participants had completed the second packet they were then reminded of the objective of the TAAT and led to the adjoining room where the second experimenter then led the participants through the athletic task.

Fragile Self-esteem

There were a number of personality questionnaires included in both packets but the three of particular interest for this study because of their relation to fragile self-esteem were the measures on global self-esteem, contingent self-esteem and instability of self-esteem. Fragile

self-esteem is defined as one that is high in global self-esteem, high in contingent self-esteem and high in instability of self-esteem.

Self-Esteem Level

Participants completed the Rosenberg (1965) Self-esteem Scale (RSE), which has been verified to be a reliable and valid measure of global feelings of self-worth (Kernis et al., 2008). The instructions asked participants to read the statements and to consider the extent to which they generally agree or disagree with it. There were 10 items for this questionnaire (e.g., “I feel that I am a person of worth, at least on an equal plane with others.”). Participants were asked to rate the statements using a 5-point Likert scale (1 strong agree, 5 strongly disagree). Scores were summed (items 3, 5, 8, 9, and 10 were reversed scored) in such a way that a higher score indicated higher global self-esteem. Cronbach’s alpha for this measure is .87.

Contingent Self-Esteem

To measure contingent self-esteem, participants completed the Contingent Self-esteem Scale (CSES; Paradise & Kernis, 1999; Kernis & Goldman, 2006). This is a 15-item measure that evaluates how one’s feelings of self-worth are dependent upon various outcomes and situations (e.g., “When my actions do not live up to my expectations, it makes me feel dissatisfied with myself.”). Participants used a 5-point Likert scale (1 not at all like me, 5 very much like me) to respond to each statement. Again, this measure has been shown to be reliable and valid (Kernis et al., 2008). Scores were summed (items 2, 9, 11, 13, and 15 were reverse scored) after completion and again higher scores indicated greater contingent self-esteem. Cronbach’s alpha for this measure is .83.

Instability of Self-Esteem

Kernis (2005) and Kernis et al. (2008) measured instability of self-esteem over approximately one week in which participants were asked to complete a modified version of the RSE 8 different times (once at 10am and once at 10pm for each day). Instead of asking the participants to reflect on how they *generally* feel most of the time, participants were instead asked to evaluate how they felt *at this moment*. For this current study, in the interest of time we measured instability of self-esteem with the Instability of Self-esteem Scale (ISES), which also has been tested for reliability and validity (Chabrol, Rousseau, & Callahan, 2006). The correlation ran with these data indicate that the ISES scores had a significant negative relationship with RSE ($p < .01$) and a significant positive relationship with CSES ($p < .01$), which indicates the type of relationship that the longer scale would have predicted (Kernis et al., 2008). The ISES scale is a 4-item measure with a 4-point Likert scale (0 strongly disagree, 3 strongly agree) in which participants are asked to evaluate the stability of their feelings of self-worth on items such as, "Sometimes I feel worthless; at other times I feel that I am worthwhile." As with the other measures, the scores were summed such that a higher score indicated higher instability. Cronbach's alpha for this measure is .76.

Stereotype-threat Manipulation

Before participants arrived for the experiment they were randomly assigned to either the threat or non-threat condition using a random numbers table. If participants were assigned to the threat condition then they were told that the TAAT was "a test of one's natural athletic ability." They were then told that the test "measures one's natural ability to perform complex tasks that require hand-eye coordination such as shooting, throwing, or hitting a ball or other moving objects." If assigned to the non-threat condition they were instead told that the objective of the

TAAT was to test “one’s ability to think strategically during an athletic task.” They were then told that the test was “designed to measure personal factors correlated with the ability to think strategically during an athletic performance.” In both conditions participants were instructed that the degree of difficulty would increase incrementally throughout the 8 stages of the task.

Athletic Task

The athletic task was based on Stone’s 2002 study. The task was a series of 8 golf tasks that varied in difficulty. The task was designed with wooden 2 X 4s that ranged in length from one foot to 8 feet. The two 8 foot long pieces of wood acted as the boundary for the course. There was an apparatus at the opposing wall to the participants that had three holes (small, medium, large) set at a slight incline. The participants were instructed to place the standard golf ball on the mouse pad that was placed on the floor and then given a golf putter to use to hit the ball into the hole. The first hole was a simple design in that the participants had no obstacles between them and the holes. As the course progress, varying sizes of wood were placed in the middle of the course to add difficulty.

Scoring

The three dependent variables (prediction, practice and performance) were scored according to the number of strokes and the specific size hole, in which case the largest hole would receive 3 points, the middle hole would receive 2 points, and the smallest hole would receive 1 point. Therefore, as with standard golf scoring, a higher score indicates a worse performance. The practice score was based on how many strokes the participant took during the practice time and in which hole the participant got the ball. The prediction score was based on how well the participant estimated he or she would do during the task. Finally, the performance score was determined by how well the participant did during the task.

CHAPTER 3

RESULTS

Before running the analyses, non-Caucasian participants' data were omitted and the predictor variables (RSE, CSES, and ISES) were mean-centered, which then determined high and low scores for RSE, CSES, and ISES. Correlations among RSE, CSES, ISES, practice, prediction, and performance for each condition are presented below in Table 3.1 and Table 3.2.

Table 3.1 Correlations for the Non-threat condition

	ISES	CSES	RSE	Performance	Prediction	Practice
ISES	1	.277	-.320	.300	.306	.001
CSES		1	-.228	-.098	.062	-.051
RSE			1	-.086	-.191	-.020
Performance				1	.059	-.088
Prediction					1	.157
Practice						1

Table 3.2 Correlations for the Threat condition

* $p < .05$; ** $p < .01$

	ISES	CSES	RSE	Performance	Prediction	Practice
ISES	1	.418*	-.536**	-.039	-.072	-.376
CSES		1	-.461**	.084	.155	-.449**
RSE			1	-.201	-.248	.009
Performance				1	.399*	-.068
Prediction					1	.160
Practice						1

Contingency

The significant negative correlation between contingent self-esteem and practice in the threat condition ($r = -.449$) supported the initial hypothesis that those with fragile self-esteem would exhibit self-handicapping when in the threat condition. To explore this relationship further I ran a series of hierarchical regression analyses. Interaction terms were created and are referred to in further explanation of the analyses. As stated earlier, research indicates a strong relationship between level of self-esteem and contingency; this is also what the current data suggest.

Therefore the next step was to test the interaction of level of self-esteem, contingency, and condition.

In the first step of the regression, level of self-esteem, CSES, and condition were entered for the amount of time taken for practice. There was a significant main effect for contingency and practice ($\beta = -.365$, $p < .01$) but not for any of the other variables. Level X CSES, level X condition, and CSES X condition were entered in the second step but again, these 2-way

interaction terms were not significant. For the final step of the regression the 3-way interaction term, level X CSES X condition, was entered. This analysis revealed a significant 3-way interaction among level of self-esteem, CSES, and condition for the practice score ($\beta = -0.835$, $p < .05$). The overall model was also significant, $F(7, 63) = 2.784$, $p = 0.015$. Although practice was the main dependent variable of interest, hierarchical regressions were run with level, contingency and condition for all 3 dependent variables and the standardized betas are reported in Table 3.3.

Table 3.3 Standardized Beta Coefficients for Contingency

* $p < .05$; ** $p < .01$

	Practice	Prediction	Performance
Level	-.143	-.208	-.172
CSES	-.365 **	.051	-.039
Condition	.006	.047	-.067
Level X CSES	-.144	-.305 *	.213
Level X Condition	-.117	.026	-.152
CSES X Condition	-.415	-.063	.177
Level X CSES X Condition	-.835 **	-.428	.255

Further analyses investigated the simple slopes to understand the direction of the 3-way interaction. A significant simple slope was found to be for individuals with high level and high contingency in the threat condition for number of practice strokes taken ($\beta = -.497$, $p < .05$). In

other words this suggests that these individuals with the previously stated personality markers in the threat condition will practice less than other individuals (Figure 3.1).

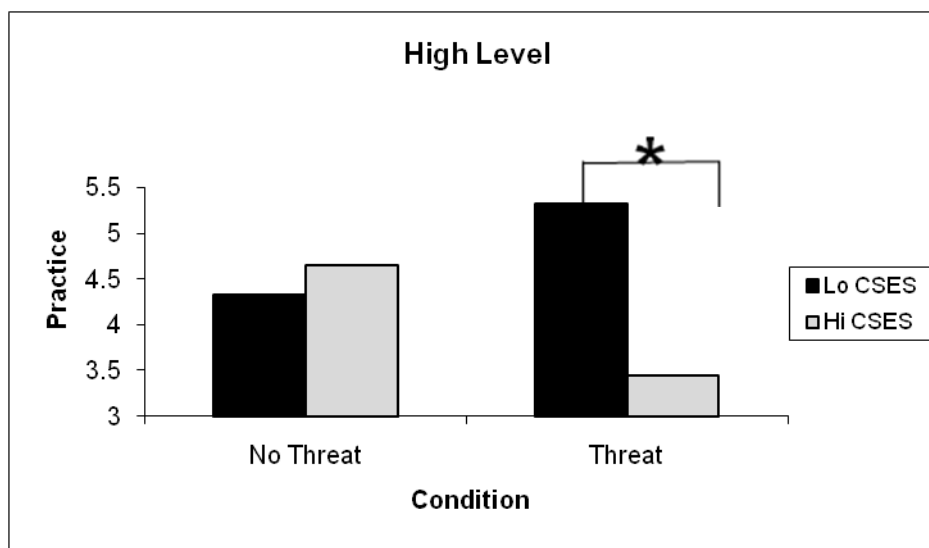


Figure 3.1 Differences in Practice Strokes for Individuals with High Level and High or Low Contingent Self-esteem.

* $p < .05$; Note that a higher number for practice indicates the individual took more strokes during the practice session.

Instability

Next I examined the relationship between another fragility marker, instability, and practice to test the hypothesis that fragile self-esteem would play a role in self-handicapping. As with the previous analysis hierarchical regressions were run with level, instability and condition for all 3 dependent variables and the standardized betas are reported in Table 3.4. The significant 3-way interaction for instability though was found with prediction as the dependent variable and not practice. For the significant 3-way interaction level of self-esteem, ISES, and condition with prediction scores as the dependent variable were entered at the first step but resulted in no

significant main effects. Level X ISES, Level X Condition, and ISES X Condition were entered at the second step. The only significant 2-way interaction here was with Level X ISES ($\beta = -.320, p < .05$). At the final step the 3-way interaction term was entered and found to be significant ($\beta = -0.587, p < .05$). The overall model was also significant, $F(7, 64) = 2.736, p = 0.016$.

Table 3.4 Standardized Beta Coefficients for Instability

* $p < .05$

	Practice	Prediction	Performance
Level	-.134	.260	-.149
ISES	-.289 *	-.071	.019
Condition	-.032	.048	-.069
Level X ISES	-.210	-.320 *	-.054
Level X Condition	-.150	-.222	-.248
ISES X Condition	-.270	-.238	-.367
Level X ISES X Condition	.012	-.587 *	.227

As with the previous findings, simple slope analyses were run to determine the direction of the significance. It was found that individuals in the threat condition with high level and high instability predicted better scores than other individuals ($\beta = -.775, p < .05$; Figure 3.2)

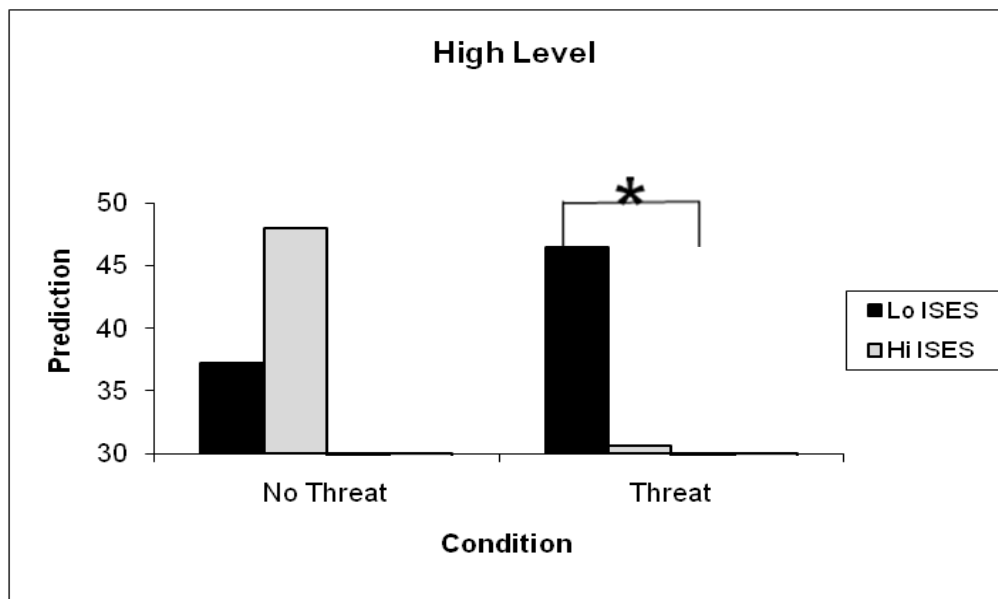


Figure 3.2 Differences in Prediction of Strokes for Individuals with High Level and High or Low Instability of Self-esteem

$p < .05$; Note that a higher score for the prediction ratings indicates that the individual predicted a worse performance per standard golf scoring rules

CHAPTER 4

DISCUSSION

These results replicate the findings that when presented with an athletic task that measures natural athletic ability, White participants will exhibit self-handicapping (Stone, 2002). The results from this study also support the hypothesis that individuals with fragile high self-esteem, more specifically those with high level and high contingency, will experience greater self-handicapping when in the threat condition than those with secure self-esteem.

The second major finding of this study also occurred with those with fragile high self-esteem but this time with those with high level and high in the threat condition. Here the dependent variable of interest was prediction. The predictions made by those with fragile high self-esteem were significantly greater than those with secure self-esteem.

Theoretical Implications

The fewer strokes taken during the practice session of the threat condition supports the idea that self-handicapping is a defensive strategy (Coudevylle et al., 2008). Previous research also suggests that fragile self-esteem is related to *verbal* defensiveness but that there is a missing link between fragility and *behavioral* defensiveness (Kernis et al., 2008); therefore this could be that missing link. The threat of potentially underperforming in the golf task appears to have lead participants to practice less thus providing them with a presumably valid excuse to use to explain their poor performance.

The implication for the prediction results, again found in those with high level and high instability, is that those individuals were presumably more confident in their ability going into

the task. Further analyses need to be done to investigate whether the predicted scores were in fact reasonable predictions or if these individuals exhibited overconfidence in their abilities. If the prediction scores are better than the actual scores, thus indicating overconfidence, then there could be implications that would suggest that individuals with high level and high instability could be related to narcissism based on the previous research that suggests overconfidence is related to narcissism (Campbell, Goodie, & Foster, 2004).

Limitations

While these results do indicate two significant 3-way interactions the findings do need to be replicated with a larger sample. Perhaps with a larger sample the interactions will be replicated and found in more instances. In other words, the small sample could explain why the interaction with participants with high level and high contingency in the threat condition was found for practice but not in the other dependent variables and further why the interaction with participants with high level and high instability in the threat condition was only found for prediction. For the prediction variable both the Level X CSES and Level X ISES had significant standardized beta coefficients ($\beta = -.305, p < .05$; $\beta = -.320, p < .05$, respectively) and thus a larger sample size may help to strengthen this relationship and perhaps indicate a more specific relationship between fragility markers and confidence levels. Finally, this study failed to find significant effects for a difference in performance levels for the two conditions or different personality markers. Stone et al. (1999) found an effect for performance by looking at participants who were psychologically engaged or disengaged in athletics by evaluating scores on the Athletic Disengagement Scale (ADS). The purpose of this current study though was to find a more broad generalization of personality markers and effects of condition. By replicating

this study, we will be able to see the entire picture; we would be able to see how various fragility markers and psychological engagement in sports affects the consequences of stereotype threat.

Future Directions

As indicated above, further analyses need to be done to determine the presence of overconfidence in the threat condition. Further analyses could also look into the other personality measures completed through the study such as implicit self-esteem and contingent self-worth. Another question to investigate is whether the experimenters' race affected the participants' performance depending upon which condition the participant was in and at what stage the participants interacted with the different experimenters. Two experimenters were used in the study to minimize the potential for experimenter bias but further analyses will investigate the role the experimenters' race played throughout the testing session.

Conclusions

In conclusion, fragile self-esteem does play a role in self-handicapping when an individual experiences stereotype threat. More specifically, having high contingent self-esteem and high global self-esteem will increase self-handicapping when threatened by the risk of underperformance. In addition, having high instability and high global self-esteem may lead to better confidence or even overconfidence in one's abilities when in a threat condition. Again, looking at these individual differences in fragile self-esteem more generally may lead to more broad implications.

REFERENCES

- Berglas, S., & Jones, E. (1978). Drug choice as a self-handicapping strategy in response to noncontingent success. *Journal of Personality and Social Psychology, 36*(4), 405-417.
- Campbell, W. K., Goodie, A. S., & Foster, J. D. (2004). Narcissism, Confidence, and Risk Attitude. *Journal of Behavioral Decision Making, 17*(4), 297-311.
- Chabrol, H., Rousseau, A., & Callahan, S. (2006). Preliminary results of a scale assessing instability of self-esteem. *Canadian Journal of Behavioral Science, 38*(2), 136-141.
- Coudevylle, G., Ginis, K. A. M., & Famose, J.-P. (2008). Determinants of self-handicapping strategies in sport and their effects on athletic performance. *Social Behavior and Personality, 36*(3), 391-398.
- Croizet, J.-C., Désert, M., Dutrévis, M., & Leyens, J.-P. (2001). Stereotype threat, social class, gender, and academic Under-achievement: When our reputation catches up to us and takes over. *Social Psychology of Education, 4*(3-4), 295-310.
- Feick, D. L., & Rhodewalt, F. (1997). The double-edged sword of self-handicapping: Discounting, augmentation, and the protection and enhancement of self-esteem. *Motivation and Emotion, 21*(2), 147-163.
- Kernis, M. H. (2005). Measure self-esteem in context: The importance of stability of self-esteem in psychological functioning. *Journal of Personality, 73*(6), 1569-1605.
- Kernis, M. H., & Goldman, B. G. (2006). Assessing stability of self-esteem and contingent self-esteem. In M. H. Kernis (Ed.), *Self-esteem issues and answers: A sourcebook of current perspectives* (pp. 77–85). New York: Psychology Press.

- Kernis, M. H., Lakey, C. E., Heppner, W. L. (2008). Secure versus fragile high self-esteem as a predictor of verbal defensiveness: Converging findings across three different markers. *Journal of Personality, 76*(3), 477-512.
- Leary, M. R. & Shepperd, J. A. (1986) Behavioral self-handicaps versus self-reported handicaps: A conceptual note. *Journal of Personality and Social Psychology, 51*(6), 1265-1268.
- McCrea, S. M. (2008). Self-handicapping, excuse making, and counterfactual thinking: Consequences for self-esteem and future motivation. *Journal of Personality and Social Psychology, 95*(2), 274-292.
- McCrea, S. M. & Hirt, E. R. (2001). The role of ability judgements in self-handicapping. *Personality and Social Psychology Bulletin, 27*(10), 1378-1389.
- Paradise, A. W., & Kernis, M. H. (1999). Development of the contingent self-esteem scale. Unpublished data. University of Georgia.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Schmader, T. (2002). Gender identification moderates stereotype threat effects on women's math performance. *Journal of Experimental Social Psychology, 38*(2), 194-201.
- Spencer, S.J., Steele, C.M., Quinn, D.M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology, 35* (1), 4-28.
- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology, 69*(5), 797-811.
- Stone, J. (2002). Battling doubt by avoiding practice: The effects of stereotype threat on self-handicapping in white athletes. *Personality and Social Psychology Bulletin, 28*(12), 1667-1678.

Stone, J., Lynch, C. I., Sjomeling, M., & Darley, J. M. (1999) Stereotype threat effects on Black and White athletic performance. *Journal of Personality and Social Psychology*, 77(6), 1213-1227.