Normative Feedback, Levels of Narcissism, and Student Evaluations of a Lecture

Shirley Ann Hodges
University of Southern Mississippi

Follow this and additional works at: https://aquila.usm.edu/dissertations

Part of the Applied Behavior Analysis Commons, and the Clinical Psychology Commons

Recommended Citation
https://aquila.usm.edu/dissertations/292

This Dissertation is brought to you for free and open access by The Aquila Digital Community. It has been accepted for inclusion in Dissertations by an authorized administrator of The Aquila Digital Community. For more information, please contact Joshua.Cromwell@usm.edu.
NORMATIVE FEEDBACK, LEVELS OF NARCISSISM,  
AND STUDENT EVALUATIONS OF A LECTURE   

by   

Shirley Ann Hodges   

A Dissertation   
Submitted to the Graduate School   
of The University of Southern Mississippi   
in Partial Fulfillment of the Requirements   
for the Degree of Doctor of Philosophy   

August 2014
ABSTRACT

NORMATIVE FEEDBACK, LEVELS OF NARCISSISM, AND STUDENT EVALUATIONS OF A LECTURE

by Shirley Ann Hodges

August 2014

Individuals who have narcissistic traits have a tendency to behave more aggressively in both indirect and direct ways, especially when confronted with negative feedback that threatens their self-esteem. Little is known about how trait-level individual differences affect aggression for people who have narcissistic tendencies. Among adults, where direct confrontation is generally discouraged, aggression may be difficult to detect. Rational-appearing aggression is used in the workplace, generally by supervisors toward employees. In some environments, however, including academic environments, 360° feedback is prevalent, with faculty grading student performance and students evaluating faculty in the form of course evaluations. Faculty are held accountable for student grades with grade appeal processes in place at most if not all universities. Course evaluations, conversely, are completed anonymously so that there is no recourse for faculty and no accountability for students, resulting in minimal cost to students who target instructors in this way. The potential for aggression in the course evaluation process makes this context ideal for the study of rational-appearing aggression in a population with generally higher rates of narcissism. The proposed study is designed to determine whether the relation between levels of narcissism (high, moderate, low) and ratings of a lecture changes depending on feedback about a test score and whether those changes are affected by participants’ actual and perceived test scores.
NORMATIVE FEEDBACK, LEVELS OF NARCISSISM,
AND STUDENT EVALUATIONS OF A LECTURE

by

Shirley Ann Hodges

A Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

Approved:

________________________
Dr. Tammy Greer
Committee Chair

________________________
Dr. Sheree Watson

________________________
Dr. Alen Hajnal

________________________
Dr. Maureen Duffy

________________________
Dr. Karen Coats
Dean of the Graduate School

August 2014
ACKNOWLEDGMENTS

I would like to thank the chair of my committee, Dr. Tammy Greer, whose proficiency, instruction, and enthusiasm encouraged me to continue this journey until its completion. I would also like to thank the other committee members, Dr. Sheree Watson, Dr. Alen Hajnal, and Dr. Maureen Duffy, for their guidance during this project.
# TABLE OF CONTENTS

ABSTRACT....................................................................................................................ii

ACKNOWLEDGMENTS.................................................................................................iii

LIST OF TABLES............................................................................................................v

LIST OF ILLUSTRATIONS............................................................................................vi

LIST OF ABBREVIATIONS............................................................................................vii

CHAPTER

I INTRODUCTION.................................................................................................1

Review of Related Literature
Research Hypotheses

II METHODS .............................................................................................................. 36

Participants
Measurements
Procedures

III RESULTS ............................................................................................................. 45

Analyses

IV DISCUSSION ....................................................................................................... 62

Summary

APPENDIXES ......................................................................................................... 67

REFERENCES ......................................................................................................... 84
LIST OF TABLES

Tables

1. Gender X Feedback Group.................................................................45
2. Race X Feedback Group.................................................................46
3. Descriptives for and Simple Correlations among the Independent Variables.....47
4. Descriptives for and Simple Correlations among the Dependent Variables.......48
5. Gender Differences on Independent Variables and Dependent Variables........50
6. Race Differences on Independent and Dependent Variables........................51
7. Cut Points for Grouping NPI by Race....................................................52
8. Correlations between Independent Variables and Dependent Variables.........53
9. Correlations of Perceived Test Scores, Actual Test Scores, and Lecture Evaluations with Self-Esteem Measures..............................................55
10. Differences among Feedback Groups on Self-Esteem Measures..................56
11. Hypothesis Confirmation Status..........................................................60
LIST OF ILLUSTRATIONS

Figure

1. Effect of Feedback Group (Below Average, Average, and Above Average) on Lecture Evaluation.................................................................55
2. Effects on Perception of Test Scores and Levels of PNI Grandiosity (Low, Moderate, High) at Each Level of Feedback Group (Above Average, Average, Below Average) on Lecture Evaluations........................................57
3. Effects on Perception of Test Scores and Levels of PNI Vulnerability (Low, Moderate, High) at Each Level of Feedback Group (Above Average, Average, Below Average) on Lecture Evaluations........................................58
4. Effects on Perception of Test Scores and Levels of NPI Vanity (Low, Moderate, High) at Each Level of Feedback Group (Above Average, Average, Below Average) on State Self-Esteem Scores (SSES Social)........59
5. Effects on Perception of Test Scores and Levels of NPI Vanity (Low, Moderate, High) at Each Level of Feedback Group (Above Average, Average, Below Average) on State Hostility (PANAS Hostility).................59
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>BPAQ</td>
<td>Buss-Perry Aggression Questionnaire</td>
</tr>
<tr>
<td>CRT</td>
<td>Conditional Reasoning Task</td>
</tr>
<tr>
<td>GFIDR</td>
<td>Gender-Free Inventory of Desirable Responding</td>
</tr>
<tr>
<td>MANOVA</td>
<td>Multivariate Analysis of Variance</td>
</tr>
<tr>
<td>NPI</td>
<td>Narcissistic Personality Inventory</td>
</tr>
<tr>
<td>PANAS</td>
<td>Positive and Negative Affect Schedule</td>
</tr>
<tr>
<td>PNI</td>
<td>Pathological Narcissism Inventory</td>
</tr>
<tr>
<td>SET</td>
<td>Student Evaluation of Teach</td>
</tr>
</tbody>
</table>
CHAPTER 1
INTRODUCTION
Review of Related Literature

Narcissistic Tendencies and Aggression

In the late 1970s and ‘80s, parents and educators began to provide direct feedback and indirect opportunities designed to increase the self-esteem of their children and students (Haney & Durlak, 1998), believing that self-esteem was important for the development of their children. Self-esteem programs introduced in many school districts across the United States (Swann, 1996) appear to have been effective (Twenge & Campbell, 2001). Increased self-esteem seems to have some benefits, with findings indicating low to moderate positive relationships between self-esteem and life satisfaction (Diener & Diener, 1995), emotional reappraisal (Nezlek & Kuppens, 2008), and negative relationships with measures of anxiety and depression (Sowislo & Orth, 2013). However, the self-esteem and self-worth movement implemented in schools throughout the nation was not rooted in performance or any special quality but in self-centeredness, employing projects labeled “All About Me” (Sykes, 1996), affirmations of self-worth (Swann, 1996), and an emphasis on feeling special and applauding oneself (Seligman, Reivich, Jaycox, & Gillham, 1995). The self-esteem movement has been critiqued as one cause for the increase in narcissism.

The well-documented rise of narcissism in the United States has many implications for how young individuals will behave in groups, set goals for themselves, and accomplish those goals. As evidence of the increase in narcissism, in a 2003 study (n = 3,445), Foster, Campbell, and Twenge found that younger group of participants scored
higher on the Narcissistic Personality Inventory than did the older group suggesting
generational differences, not developmental. Twenge, Campbell, and Freeman (2012)
identified generational differences in Baby Boomers (born 1946-1961), Generation Xers
(born 1962-1981), and Millennials (born after 1982) in extrinsic and intrinsic values,
concern for others, and civic orientation by looking at surveys administered to American
high school seniors (Monitoring the Future) and entering college freshman (The
American Freshman). To identify a pattern, Twenge and colleagues (2012) examined the
relationship between generational changes in life goals and their relationship to values
(intrinsic and extrinsic), self-esteem, and narcissism. They found that the size of
differences between Baby Boomers and Millennials on 34 life goal items positively
predicted their relationship to overall extrinsic life goals and negatively predicted overall
intrinsic life goals. Further, they found that self-esteem did not account for the change in
values but that narcissism did ($r = .51, p < .01$). Millennials also scored lower on items
related to concern for others (e.g., *important to correct inequalities; empathy for
outgroups index*) with one exception of volunteering in high school and expecting to
volunteer in college ($r’s = .89 & .94, ps < .001$). However, Twenge and colleagues (2012)
point out that many colleges and high school organizations require volunteering as a part
of consideration for application and membership. Overall, the average change in items
related to concern for others is significant. Finally, the results demonstrate a decline in
civic orientation items between Baby Boomers and Millennials. These studies highlight a
trend in the United States towards an increase in narcissistic and self-centered tendencies
in some individuals as a function of birth year.
High self-esteem is characterized by positive feelings of self-worth, while the characteristic trait of narcissism is an inflated sense of self, including thinking much of one’s own attractiveness, power, and importance (Campbell, Rudich, & Sedikides, 2002). Although positive correlations between self-esteem and narcissism have been identified, not all individuals who score high on measures of self-esteem also score high on measures of narcissism (Bushman & Bauemeister, 1998). This discrepancy may be due to different aspects of narcissism that correlate differently with self-esteem (Zeigler-Hill & Besser, 2013). Ziegler-Hill and Besser (2013) found individuals who score high on specific facets and low on other facets of two different measures of narcissism will likely score high on measures of self-esteem. High scores on the Leadership/Authority scale, Grandiose Exhibitionism scale, and Grandiosity scale and low scores on Vulnerability scale and Entitlement/Exploitativeness scale predict high scores on a measure of self-esteem. Atlas and Them (2008) conceptualize narcissism in terms of overt and covert characteristics. Overt narcissism is characterized by feelings of superiority, a need to be recognized, and a concern with experiencing success, while covert narcissism involves a negative self-centeredness. Overt narcissism is considered a measure of the personality trait of narcissism, and covert narcissism is theoretically related to narcissistic personality disorder.

Individuals who score high on scales of narcissism are more likely to be socially extroverted, while having little interest in forming relationships with others (Campbell, 1999). Narcissism is also believed to involve a dysfunction in the process of self-regulation (Morf & Rhodewalt, 2001), which accounts for its many apparent paradoxes, especially grandiosity and vulnerability. Those who score high on measures of narcissism
tend to participate in attention seeking (Miller, Gentile, Wilson, & Campbell, 2013), taking credit from others (Campbell, Reeder, Sedikides, & Elliot, 2000), and looking for opportunities to achieve public glory (Wallace & Baumeister, 2002), all believed to be a part of the process of building up one’s ego that is vulnerable to others’ criticism and praise (Morf & Rhodewalt, 2001). Due to the tendency to work towards maintaining one’s vulnerable self-esteem, those with narcissistic traits tend to become angry and aggressive when insulted, criticized, or rejected by others (Twenge & Campbell, 2003).

An increase in the likelihood of aggression is so common among those scoring high on scales of narcissism that aggression is considered characteristic narcissistic personality disorder. In a study involving 188 at-risk adolescents (ages 16-18), high scores on measures of pathological narcissism predicted low scores on measures of self-esteem and high scores on proactive aggression, anxiety, depression, and social stress. High scores on measures of nonpathological narcissism predict high scores on measures of self-esteem and proactive aggression and low scores on measures of anxiety, depression, and social stress (Barry & Kauten, 2014). Nonpathological tendencies also predicted more delinquency and reactive aggression, while pathological tendencies predicted contingent self-worth. When individuals scoring high on measures of narcissism encounter negative feedback, or feedback that merely disagrees with their inflated sense of self, they have a tendency to aggress against those around them. Higher scores on a measure of narcissism predicted aggressive behavior when participants imagined themselves receiving negative feedback in a public setting (Ferriday, Vartanian, & Mandel, 2011). The results indicated that negative feedback was more likely to produce an aggressive response in those scoring high on a measure of narcissism but not
in those scoring low on narcissism. However, the study also indicated that narcissism predicted aggression only when feedback was given publicly, not privately. Importantly, the assignment as well as the feedback in the study were imagined by participants and not actually experienced. In another study where actual feedback was given privately, Barry, Chaplin, and Grafeman (2006) examined different types of negative feedback (ipsative, idealized, and normative) given to individuals who varied on measures of narcissism. The results reveal that individuals receiving negative normative feedback (e.g., *You did poorly compared to other students who have played this game*) were more likely to be aggressive than those who were given negative ipsative feedback (e.g., *You really did worse this time than you did the last time*). Further, higher scores on the measure of narcissism predicted increased aggression after negative normative feedback was given.

Although it is well known that traits of narcissism predict aggressive tendencies in some individuals, little is known about the cognitive processes or other attributes that correlate with aggression in people scoring high on measures of narcissism. In 1975, Kernberg theorized that narcissism developed because of rejection from parents. Other individuals in the lives of those scoring high on narcissism continued to reactivate that rejection. Kohut (1966) agreed with Kernberg that narcissism was merely a mask for true insecurity and low self-esteem. On the other hand, Miller (1981) suggested that parents who excessively swell a child’s self-esteem and value and impart a sense of entitlement and self-centeredness caused narcissism, and others who did not agree with this perception of self would experience aggression at the hands of the individual. A threat to the self-perception appears to be the provocation for those scoring high on measures of narcissism to lash out at others (e.g., Thomaes, Bushman, Stegge, & Olthof, 2008;
Vaillancourt, 2013). Barry and Kauten (2014), Ferriday and colleagues (2011), and Barry and colleagues (2006) provide evidence showing that individuals scoring high on measures of narcissism also tend to act in more aggressive ways; however, the question of *What motivates that behavior?* remains unanswered.

Aggression is a group of physical and non-physical hostile behaviors and attitudes that occur in varied dimensions among humans. In a normal population, it can occur for many intrapersonal and interpersonal reasons. At times, aggression is punished and, at other times, rewarded. The same behavior can have many purposes and fulfill a variety of needs depending on the individuals involved. For this study the focus is on non-physical aggression, its development and existence in a normal population, and the cognitive process that accompanies aggressive actions in a population scoring high on scales of narcissism.

*Forms of Non-Physical Aggression*

Interpersonal aggression is one form of non-physical aggression that can be as emotionally distressing as physical aggression is physically distressing. Victims of interpersonal aggression are found to be more depressed, anxious, and lonely as well as to have more negative cognitions in several categories, such as physical appearance, romantic and platonic relationships, and self-worth (Craig, 1998; Paquette & Underwood, 1999). Aggressive actions in this category include but are not limited to gossiping, spreading rumors, using an individual to meet one’s own needs, and excluding others socially (Archer & Coyne, 2005). These acts are intended to damage or manipulate relationships. Acts of interpersonal aggression are often difficult to identify by outsiders because the actions in one situation performed with the intent to harm someone are
considered aggressive, whereas the same actions without the malice are considered non-aggressive yet may still have the same harmful effects.

Interpersonal aggression has been given several different names in the literature, including social, relational, and indirect aggression (Archer & Coyne, 2005). While these terms encompass many similar aggressive acts meant to damage relationships, the mechanism may vary slightly in each of these subcategories. Social aggression refers to covert and overt aggressive actions intended to alter someone’s social standing and group acceptance (Galen & Underwood, 1997). Relational aggression is aggression intended to harm friendships and consists of mostly covert actions with some overt exceptions (Galen & Underwood, 1997). Finally, indirect aggression refers to the nature of the aggression, which is often covert, low-cost, and low-risk for the perpetrator (Björkqvist, 1994).

Indirect aggression, the original term used to describe the three similar types of aggression, is the term of choice in the Archer and Coyne (2005) review and will be used throughout this paper to represent the overarching concept of aggression that is relational, social, and elusive.

Development of Indirect Aggression

Human aggression, defined in terms of the intent to cause harm to another, is expressed using physical acts that are direct (e.g., hitting, shoving) and indirect (e.g., tripping, bumping into someone) and verbal acts that are both direct (e.g., direct insults) and indirect (e.g., gossiping). The development of aggressive behaviors has been a subject of interest for years (e.g., Jersild & Markey, 1935). During infancy and toddlerhood, aggression most often occurs in the form of temper tantrums and instrumental aggression (i.e., grabbing an object) directed towards adults and peers.
(Shantz, 1987). Cummings, Iannotti, and Zahn-Waxler (1989) longitudinally observed children playing with best available friends at the ages of two and five and found continuity in several dimensions. Bodily aggression, initiations of aggression, and physical aggression at two is a moderate predictor of object-related aggression at five. Initiations of aggression and physical aggression at five were also predicted by the same dimensions at two. However, observed frequencies and duration of physical aggression declined between the ages of two and five, with boys having more stable scores than girls. These findings indicate that while the incidences of aggression may decline, the rank ordering of individuals on scales of aggressiveness remains stable throughout early childhood. Incidences of physical aggression, while common among toddlers and young children, are eventually outnumbered by incidences of direct verbal and indirect aggression that last well into adulthood. Specifically, using a large sample (n = 1,567) of college and high school students, researchers found that high school students report being more physically aggressive than college students and less passive-rationally aggressive, a construct defined both by trying to harm others through withdrawal of communication or withdrawal of other forms of help and by normal-seeming acts designed to incapacitate a person at work or school (Verona, Sadeh, Case, Reed, & Bhattacharjee, 2008).

During childhood, most girls and many boys develop interpersonal skills and experience a decrease in physically aggressive acts (Loeber & Hay, 1997). To explain this phenomenon, a theory of the development of indirect verbal aggression has been hypothesized and tested (Björkqvist, Lagerspetz, & Kaukiainen, 1992). This theory accounts for the ordered appearance of (a) physical aggression, (b) direct verbal aggression, and (c) indirect verbal aggression. To young children, physical aggression is
the only form of aggression available. As physical aggression is punished more harshly and readily by authority figures (e.g., parents, teachers) than verbal aggression and may also result in injury during the aggressive act, children must develop more complex ways to act aggressively. As children develop verbal skills and emotional intelligence, they are able to communicate aggression verbally. However, direct verbal aggression still has a high cost because the target of aggression is aware that he or she is being targeted and may choose to retaliate. Therefore, children and adolescents learn to verbally aggress in an indirect manner so that the aggressive act is low-cost to themselves but yields high dividends (e.g., talking bad about a peer among friends; e.g., Ostrov, 2008). This interpersonal aggression remains unseen by the target and unpunished by authority figures. However, it is rewarded by attention from peers and possible social manipulation to gain status among peers (Björkqvist, 1994). This low-cost, high-yield type of aggression requires a measure of social intelligence to analyze the cost-effect ratio and is a behavior that females may develop before their male peers (Björkqvist, 1994). Kaukiainen et al. (1999) tested this hypothesis and found that among adolescents, the development of social intelligence corresponded with the development of indirect aggression. Moreover, the social networks required to be indirectly aggressive are developed earlier in females than in males (Björkqvist et al., 1992). This may explain the lag observed in the development of verbal aggression and may be the reason adolescent males turn to physical aggression more often than adolescent females (Björkqvist et al., 1992). Alternatively, the discrepancy between male and female development of aggression may result from differences in the goals of the aggression (Crick, 1996). Girls more often focus on relationships and issues concerning social friendships (e.g.,
developing and maintaining friendships). Reasonably, therefore, the general goal of their aggression often concerns the maintenance of friendships or the manipulation of social standing in peer groups. Consequently, girls may be more likely than boys to participate in relational aggression. Boys, however, may be more likely than girls to participate in overtly aggressive behaviors because their goals of relationships and aggression are more often dominance-focused and instrumental (i.e., shoving to move past someone).

While acts of overt aggression have long been documented as stable over time (Cairns, Cairns, Neckerman, Ferguson, & Gariepy, 1989; Loeber & Hay, 1997; Olweus, 1977; Pulkkinen & Pitkänen, 1993), more recently, relational aggression has been found to also be a stable trait in children (Crick, 1996). In a longitudinal study using third through sixth grade children (n = 245), Crick (1996) found that relational aggression is relatively stable as a trait in childhood (over a 6-month period) and, for girls, is predictive of social maladjustment, measured by peer rejection. Reinforcement may maintain indirect aggressive behavior (Prinstein & Cillessen, 2003), as dominance, aggression, and high social status are correlated among young children (Pettit, Bakshi, Dodge, & Coie, 1990; Wright, Zakriski, & Fisher, 1996). Specifically, aggression and dominance are related to peer ratings of leadership, revealing that aggressive individuals are seen as popular (Parkhurst & Hopmeyer, 1998). However, evidence is less conclusive about the relationship among the variables of aggression, dominance, and group acceptance, suggesting that although the traits of aggression and dominance may build a person’s reputation, these characteristics may not build friendships (Vaughn & Waters, 1981). For example, in a longitudinal study of 10- to 14-year-olds, researchers found that relational aggression predicted high social prominence but low social preference (Cillessen &
Mayeux, 2004). Prinstein and Cillessen (2003) also found that while aggression was associated with high peer-perceived popularity, this standing also correlated with low likeability. Additionally, in the longitudinal study by Crick (1996) mentioned earlier, peer-measured relational aggression in the third grade predicted peer rejection in the sixth grade for both girls and boys. Interestingly, indirect aggression that targets social relationships to diminish the status of the target would, theoretically, aid in building social status of the aggressor with the social status boost reinforcing the aggressive behavior. However, if a person of low social status, having little influence, attempts reputational aggression, the social rewards will be negligible and the behavior will be extinguished.

Although indirect verbal aggression is the developmentally normal outlet for aggression in young adulthood and beyond, physical aggression still exists well into adulthood and in a variety of situations (e.g., home, work, school). The peak age of violence is at the mark of young adulthood (ages 17 and 18) with 32% in this age bracket reporting that he/she committed an act of violence (U.S. Department of Health and Human Services, 2001). The media’s reports of workplace violence have not been unfounded, with 5% of all companies and state and local branches of government reporting at least one act of workplace violence in 2005 (Bureau of Labor Statistics, 2005). An estimated 4 to 6 million intimate relationships experience physical violence annually (Rodriguez, Bauer, McLoughlin, & Grumbauch, 1999), and in 1998, more than 1 million violent crimes (900,000 towards women and 160,000 towards men) were committed by current or former intimate partners (Rennison, Welchans, & United States, 2000). However large these numbers appear, the reported rates of verbal aggression are
larger. The U.S. Department of Education (2007) reported that between 23.5% and 42.9% of sixth through 12th graders reported being bullied. Between 3.8% and 14.4% of the same students report being physically injured by the bullying. While 30% of men and 33.6% of women reported committing a physically aggressive act in a dating relationship, 93.3% of women and 97.5% of men report committing verbally aggressive acts (Riggs & O’Leary, 1996). These findings demonstrate that in adolescence and adulthood verbal aggression is more prevalent than physical aggression across all venues.

Gender and Indirect Aggression

Numerous studies suggest that males are more aggressive than females regardless of the form of aggression (Bettencourt & Miller, 1996; Hyde, 1984; Verona et al., 2008). In other studies girls have been found to be more relationally aggressive than boys. For example Crick and colleagues (2006), in a longitudinal study found preschool girls to be more relationally aggressive than preschool boys, with preschool boys more physically aggressive. Verona and colleagues (2008) found that gender differences in acts of relational aggression disappear by late adolescence and early adulthood, between high school and college, so that with both genders there is a movement away from physical aggression to nonphysical aggression. In the Verona study, high school males reported less aggression than high school females on a scale measuring passive-rational aggression, and college students reported no difference on the same scale. In a sample of 5,151 11- to 18-year-olds, Karriker-Jaffe, Foshee, Ennet, and Suchindran (2008) found that boys were more physically aggressive than girls (although males and females had the same trajectories), and there were no gender differences in social aggression. Similarly, Leenaars and Rinaldi (2010) examined the experiences of university students who
participate (as victims and/or aggressors) in indirect aggression and found no sex differences in either the role of victim or aggressor. Archer’s (2004) meta-analytic review indicates that the above findings are representative of the current studies, adding that although males use more costly forms of aggression, there is no difference in levels of anger for males and females.

Several studies have indicated that there are no gender differences in the use of indirect aggression by adults (Archer, 2004; Green, Richardson, & Lago, 1996). Based on the perception of gender differences, however, indirect aggression by females and physical aggression by males are viewed more negatively and more harmful than acts of each type of aggression committed by a person of the opposite gender (Harris & Knight-Bohnhoff, 1996). This finding is true for college students as well (Basow, Cahill, Phelan, Longshore, & McGillicuddy-DeLisi, 2007). Because adults who participate in aggressive acts may tend to maximize the effect-danger ratio, that is, to inflict the maximum amount of pain to an individual while minimizing the risk of danger to self (Björkqvist et al., 1992), indirect aggression, which is subtle and often low risk, is the preferred method of aggression for both men and women.

Correlates and Predictors of Indirect Aggression

Correlations between direct and indirect aggression exist. A meta-analysis of 148 child and adolescent studies showed a significant inter-correlation (weighted average $r = .76$, differential $d = .11$) between indirect and direct forms of aggression (Card, Stucky, Sawalani, & Little, 2008). However, the two forms have different associations with other variables. For example, direct aggression is associated with externalizing problems, low prosocial behaviors, and poor peer relations. Indirect aggression correlates to higher
prosocial behavior and internalizing problems. In adulthood, measures of indirect and direct aggression were moderately correlated according to self-reports of 94 college students and specific targets (Richardson & Green, 2006). Researchers studied aggression within specific types of relationships and identified correlations among indirect and direct aggression scores based on relationship. Their findings indicated that moderate correlations exist between scores of direct and indirect aggression in opposite-sex friendships, with romantic partners, and with same-sex friendships.

Having been victimized was the strongest predictor of future aggression ($r = .50, p < .001$). For those having been victimized, positive correlates of indirect aggression included instrumental representation of aggression and sensation seeking (Leenaars & Rinaldi, 2010). University students who exhibited indirect aggression were more likely to be sensation seekers and also tended to have an increase in internalization of problems, inattention/hyperactivity, and interpersonal problems. Although not at the same level of intensity or same number as victims, aggressors also report problems with psychosocial maladjustment. This researcher is interested in identifying correlates of indirect aggression, including an overall tendency toward aggression using rational defenses and aggression in four major domains (physical aggression, verbal aggression, anger, and hostility).

*Rationalizations and Indirect Aggression*

While some aggressive individuals are aware of their motives to harm other people, most are not. Instead, they are protected by their own defense mechanisms that shield them from the shame and guilt they would otherwise experience. Recently, James and LeBreton (2010) uncovered defensive, internal cognitive processes employed
allow aggressive individuals to develop a rationale for why their aggression occurs. If the aggression exhibited can be rationalized, then aggressive acts will have few negative psychological consequences (Forrest, Eatough, & Shevlin, 2005). Rationalization serves two functions for the person who behaves aggressively. First, it hides the motive of harming another, and second, it drives a person to act aggressively by developing the idea that the behavior is sensible, justified, and even necessary. Frost, Ko, and James (2007) identified six biases by which a person can justify aggression. These include *hostile attribution, potency, retribution, victimization by powerful others, derogation of target,* and *social discounting.* Hostile attribution refers to a tendency to perceive hostility and danger in others’ behavior, producing a sense of alarm, and justification of aggression by means of self-protection. Potency describes an inclination to overly focus on dominance/submissiveness in one’s social interactions, producing a rationale that one’s acts of aggressions are in fact a form of strength. By this rationale, failure to act aggressively is a sign of weakness. Retribution refers to a person’s belief that retaliation is more logical than reconciliation. One who uses this justification mechanism may have suffered a wounded pride and will use aggression to restore honor. Victimization by powerful others is the bias to observe inequity in authority figures and therefore act aggressively, rationalized as an act against oppression, prejudice, and injustice. Derogation of target is the tendency to conceptualize a current or potential target as “evil, immoral, or untrustworthy” (James & LeBreton, 2010, p. 31) and consequently more worthy of aggression. Social discounting is a tendency to see social norms as intentionally restrictive of one’s free will, generating a sense of reactance against the restriction, and establishing a justification of aggression by giving one’s self permission
to behave in a socially deviant manner and rebel against the repression of social customs. For this study the interest is in pre-existing cognitive tendencies toward rationalizing aggressive acts because of their known relation to aggression. This study will measure individuals’ tendencies to rationalize an aggressive response to an ambiguous situation.

Aggression in Professional Settings

Harassment, or repeated acts of direct aggression among co-workers, has been studied often, portrayed on television, and appeals to a sensation-seeking public (Leymann, 1990). The repeated and nonsexual aggression in the workplace has several names in the literature, including bullying, harassment, mobbing, and psychological terrorism. One-on-one aggression in the workplace may occur without the involvement of other individuals (e.g., bystanders, other aggressors/victims) and can vary from a single insult to repeated attacks to a case of sexual harassment. Bullying occurs when an individual is targeted in a group setting by an aggressor or a group of aggressors. In this type of aggression, the aggressor-victim relationship generally includes a bystander or a group of bystanders. The term mobbing is reserved for an entire organization condoning and/or participating in the aggression and clearly depicts the outrageous “mob-like” behavior of a coworker or group of coworkers attacking another coworker with the clear goal of removing the targeted individual from the organization (Duffy & Sperry, 2007). The prevalence of workplace bullying within organizations has been established by many studies (Einarsen & Skogstad, 1996; Hogh & Dofradottir, 2001; Mikkelsen & Einarsen, 2001; Namie & Namie, 2009; Rayner, 1997). In 2002, results of a survey of 5,000 employees demonstrated that 36% of workers experience persistent hostility from colleagues, including supervisors (Keashly & Neuman, 2010). Almost 20% of these
workers also reported experiencing a level of discomfort (ranging from moderate to a great deal) due to aggressive behaviors, which included yelling, tantrums, glaring, gossip, insults, and occasionally physical/sexual assault. Because professional settings usually involve interpersonal relationships, both indirect and direct aggression are sometimes prevalent, creating an environment that is hostile and unhealthy for workers (Keashly & Neunan, 2010). Although indirect aggression does not always meet the criteria for harassment as defined by many employers, the results can be very damaging to targeted individuals. Even when the indirect aggression escalates to a situation of mobbing, the victim may be unaware of the perpetrators’ identities but may instead sense the after-math in which he or she is ignored or mistreated by others. In these situations, the perpetrators are allowed to continue, at times disguised as friends to the victim, and remain unidentified and unaccused by the victim. In other cases, an individual may know who is participating in the mobbing but may not know what to call it or whom to call on for support because the perpetrator’s actions are often sanctioned or, at the very least, ignored by the organization. The perpetrators, however, successfully manipulate relationships in the workplace, creating a social environment that is uncomfortable for the victims as well as the bystanders in these situations.

Seeing the organization’s role in mobbing is crucial to understanding how individual(s) can participate in aggressive acts against a target and go unnoticed and unpunished with a goal of forcing the target out of the organization. The interaction of the workplace environment and individual worker creates the workplace mobbing situation (Duffy & Sperry, 2007). Organizational dynamics include the culture and leadership present in an organization and can create an environment that welcomes and rewards
mobbing (Duffy & Sperry, 2007). Workplace culture is defined by its “values, beliefs, and rituals” unique to an organization (Duffy & Sperry, 2007, p. 399). If an organization’s culture is hostile, competitive, and aggressive, bullies thrive because the organization allows this behavior. Without the organization’s sanction, the mobbing could not occur. Management must also agree, in a sense, with the mobbing behavior for it to continue and may even participate in it (Duffy & Sperry, 2007).

The psychosocial problems experienced by victims of indirect aggression likely intensify the victimization and may become cyclical. However, contemporary literature suggests that while there may be a small group of victims who share some psychological characteristics, no general victim profile exists prior to initial victimization (Glaso, Matthiesen, Nielsen, & Einarsen, 2007); therefore, predicting whether or not an individual will become a target of aggression is difficult. Predicting bullying behavior may be easier. Although an organization’s culture and leadership may create an environment where aggression can occur, not all employees in the organization participate in bullying behaviors; personality factors play an important role determining whether a person leads or becomes part of the aggression. Workplace bullies tend to score high on scales of aggression, social anxiety, narcissism, and ego-centrism (Einarsen, Hoel, Zapf, & Cooper, 2003; Namie, 2003). A personal perception of injustice at the workplace makes it more likely that an employee will participate in acts of aggression in the workplace (Baron, Neuman, & Geddes, 1999). Specifically, these researchers found that the greater the degree of perceived injustice, the greater the likelihood that a supervisee would act aggressively towards a supervisor. Similarly, a higher level of supervisee dissatisfaction with a supervisor’s treatment predicted a higher
level of aggression toward the organization. Many individuals who have committed acts of workplace violence have reported that they did so in order to *even the score*, often against a supervisor who was the source of a perceived injustice (Baron, 1993). Because the search for justice is an important motivator, the employee who sees injustice is prone to rationalizing his or her aggressive acts using one or many of the mechanisms described by James and LeBreton (2010). Additionally, self-esteem can be a contributing factor for committing acts of indirect, specifically rational-looking, aggression in the workplace with lower self-esteem individuals committing more acts of indirect aggression (Dettinger & Hart, 2007).

*The Cost of Workplace Aggression*

The consequences of workplace aggression go beyond the workplace and can affect the targeted individuals in all areas of their lives, including an individual’s health, relationships, and career as well as the overall health of a targeted individual’s family. Numerous studies across a variety of samples in diverse settings/countries have found that the health of an individual is compromised when he or she experiences victimization in a professional setting (school or workplace). For example, in Taiwan, out of 231 nurses, their aides, and clerks employed by a psychiatric hospital, 25% reported being victimized by harassment or violence in the workplace in the past year, resulting in anxiety about physical violence and verbal abuse and PTSD symptoms (Chen, Hwu, Kung, Chiu, & Wang, 2008). In the United States, 522 students who attended middle and high school were asked about experiences with bullying and sexual harassment (Gruber & Fineran, 2008). When bullying and sexual harassment occurred, individuals displayed low self-esteem, poor mental and physical health, symptoms of trauma, and increased
substance abuse, with an increased effect when sexual harassment was reported. These effects were more exaggerated in females and minority students. Two qualitative studies that examined workers’ experiences with workplace aggression found that employees had extremely negative emotional consequences, including trauma, loss, and assault on identity, both personal and professional (Lutgen-Sandvik, 2008; Tracy, Lutgen-Sandvik, & Albert, 2006). In a Finland study on different types of workplace aggression, researchers found that when men experienced any form of aggression, including (a) indirect manipulative, (b) rational-appearing, (c) covert insinuative, and (d) direct overt, men would experience physical symptoms, affective cognitive problems, and psychosocial problems (Kaukiainen et al., 2001). However, women reported physical symptoms when they experienced indirect manipulative aggression and psychosocial problems when they experienced direct overt aggression, indirect manipulative aggression, and covert insinuative aggression.

Olafsson and Johannsdottir (2004) found that, generally, males bully more often than females (Mann-Whitney U-test, p< .005) and more often in the workplace (p< .001). However, no differences were found in witnessing bullying or being bullied. In response to bullying, men tended to seek help and use avoidance less often than women. Men also confronted bullies more often than women. General bullying also led to avoidance tactics and a “do nothing” approach. Age increased the likelihood that one would choose the “do nothing” approach to coping. Although significant relationships were found among independent variables and coping strategies, researchers noted that not much of the overall variance in coping strategies chosen was explained by the independent variables described above.
A five-year follow-up on a study of aggression in the workplace showed long-term effects on work and psychological health (Hogh, Henricksson, & Burr, 2005). The original study found that 6.3% of 5,652 Danish employees surveyed were experiencing aggression at work, correlating significantly to negative organizational climate and psychological health effects. After five years, researchers found that the previously measured experiences of aggression predicted psychological problems in women at the time of the follow-up study, even when organizational climate and psychological problems in the original study and aggression experienced during the follow-up were controlled for. The implication is that aggression has long-term side effects, even after the episode of aggression is over.

In a study examining gender differences in workplace bullying in prison officers, females under 35 years old identified themselves as victims of bullying more often than males (Vartia & Hyyti, 2002). Females more often than males were bullied by a peer, and females who had been working there for three to 10 years experienced more bullying than men with the same number of years of experience. The victims of bullying showed more signs of stress, mental illness, and job dissatisfaction.

Much of the research conducted on the impact of mobbing on families is anecdotal and qualitative (e.g., Tracy et al., 2006). However, Duffy and Sperry (2012) in the recent publication *Mobbing: Causes, Consequences, and Solutions* deduced that a victim’s coping responses to mobbing will determine how the victim responds in other relationships, such as to family members or friends. Using the description of responses examined by Olafsson and Johansdottir (2004), Duffy and Sperry (2012) discuss the *freeze*, *fight*, and *flight* responses and how these look when a victim of workplace
mobbing goes home to his or her family. When a person freezes (i.e., does nothing) in response to bullying at work, this person likely distances self from others and feels powerless over his or her situation, frustrating his or her family members who may want to offer support. When a person experiences a flight response (i.e., avoids the bully/bullying situation), he or she does not want to discuss the mobbing situation, also shutting out supportive family members. The individual may also choose to leave the place of employment, seek a transfer, or even commit suicide. Finally, those who have a fight response (i.e., assert themselves or seek help), may find that help at work is impossible to find, as employers often blame the victim (Rayner, 1999). Victims who choose to file a lawsuit are then exposed to months, even years, of legal battles, impacting the family financially and emotionally.

The person who is targeted by workplace aggression is likely to experience an impact in the area of career and professional identity. Job loss, either voluntary or involuntary, was the result in 64% of the bullying cases reported in the Workplace Bullying Institute/Zogby International’s study (2007). In a qualitative study, Lutgen-Sandvik (2006) analyzed 30 narratives and found stories of 224 workers who had left work due to bullying. Workplace aggression not only costs the targeted individuals but also costs the companies that employ the bully(ies) and the victim(s). In 2012, Porath and Pearson found that of employees who had reported having experiences of aggression, those who were fearful were more likely to score high on scales of indirect aggression, displacement on organization, displacement on others, and absenteeism. The victims were also more likely to change jobs within and outside the organization. While this proposed study explores correlates of indirect aggression, it is beyond the scope of the
study to examine the organizational dynamics that produce a mobbing situation. More research is needed in this area, however. The transition from rational-appearing aggression to mobbing is especially easy in academic environments where evaluations of teaching, research, and service are subjective and oversight is, for the most part, non-existent. This research will focus on the impact of trait level variables of individuals who act aggressively in a situation that is familiar and that may provoke aggressive responses from aggressive individuals, recognizing that an individual does not aggress in a vacuum.

To identify the potential within an individual to aggress using the systems in place, the surveys given to student participants will include a question regarding who sees their evaluation of the instructor and the instructor’s lecture; the options will include the instructor’s supervisor and other students who may take the instructor’s class.

*Indirect Aggression in the University System*

Indirect aggression in academic settings is perpetrated against faculty by other faculty, against students by other students, and by each of the two groups against the other (McKay, Arnold, Fratzl, & Thomas, 2008). Björkqvist, Österman, and Hjelt-Bäck (1994) utilized the Work Harassment Scale to examine the experiences of bullying and harassment among university employees (N = 338). Their findings indicated that 19 employees were targets of severe harassment, and victimization was linked to position, title (those who were involved in administration and service were more likely to be victims than those who were involved in teaching and/or research), and sex (females were more often victims than males). The victims identified the reasons for the harassment as sex (25%), envy (40%), victim’s personality (35%), unbalanced aggressor (35%), aggressor insecurity (46%), competition of position (45%), and competition over status...
Victims were more likely to experience increased rates of depression, anxiety, and aggression compared to other employees. In a study examining faculty, instructors, and librarians at a Canadian university (n = 820, respondents = 100), 52% responded affirmatively when asked if they had been bullied within the last five years, while 10% answered not sure (McKay et al., 2008). New employees and those who are not tenured experienced more workplace bullying than others, and bullying involved undergraduate students more often than graduate students. Of the affirmative respondents, 21% reported that the behaviors had been occurring for longer than five years and 16% said it was still occurring. The sources of bullying behaviors were peers (64%), those who had some power over respondents (45%), and students (27%). Respondents also reported that bullying changed the quality and quantity of work completed (24% and 31%, respectively). Thirteen percent said that they were considering leaving their current jobs, and 25% reported searching for a new job. Additionally, affirmative respondents reported feeling stress (55%), frustration (49%), anger (47%), demoralization (39%), powerlessness (37%), anxiety (35%), exhaustion (33%), irritability (28%), change in view of the university (71%), change in interest in work (56%), change in sleep (53%), change in flexibility when dealing with others and challenges (42%), and problems concentrating (40%).

Employees in university settings are susceptible to interpersonal workplace aggression and its consequences to mental health and well-being. High rates of harassment and abuse occur in academia (Richman et al., 1999). In a study looking at prevalence rates among a sample of 2,492 university employees, clerical and service workers experience more severe harassment than faculty and student workers. Female
faculty experience a higher rate of generalized workplace abuse than male faculty (67.6% and 52.3%, $ps<.001$) and more sexual harassment (40.4% and 28.8%, $ps<.001$), and male clerical workers experience a higher rate of sexual harassment than female clerical workers (46% and 30.7%, $ps<.01$). Generalized abuse occurs more often than harassment among all groups. Both harassment and abuse resulted in compromised mental health for males and females, including an increase in anxiety, depression, and hostility as well as in some cases increases in frequency of drinking and escapist drinking motives.

Covert aggression and sex differences were examined in university employees ($n=333$; Björkqvist, Österman, & Lagerspetz, 1994). Researchers measured the extent to which males and females were victims of the two types of covert aggression identified: (a) rational-appearing and (b) social manipulation. A MANOVA (two types of aggression x sex of victim x sex of aggressor) indicated no significant effect of sex of victim and type covert aggression. Males were found to aggress more often using rational-appearing aggression, and females using social manipulation. Rational-appearing aggression was employed more often than social manipulation. However, there was a positive correlation between both types of aggression, indicating that people who have a high level of covert aggression will use both tactics, but will use one more often than the other. Interestingly, as work-group size increased, the use of social manipulation did as well with no correlation between group size and rational-appearing aggression.

*Indirect Aggression in Student and Classroom Behavior*
Given the level of covert aggression among university employees and the subsequent modeling of that behavior, it seems reasonable to expect students to act in aggressive ways as well. Consequently, students and instructors can be the aggressors as well as the targets of aggression. Along with effects of environment and modeling, situational factors can contribute to student aggression toward faculty. Student-expressed aggression against an instructor may be linked to perceptions of unfair procedures in a classroom supporting the utilization of the justification mechanisms (Chory-Assad & Paulsel, 2004; James & LeBreton, 2010; Vaillancourt, 2005). Classroom justice is defined as “perceptions of fairness regarding outcomes or processes that occur in the instructional context” (Chory-Assad & Paulsel, 2004, p. 254). Perceived procedural justice and distributive justice were identified as predictors of aggression, hostility, and noncompliance towards the professor in a study involving college students (n = 154) rating different college courses. Chory-Assad and Paulsel (2004) found that perceptions of distributive justice were significantly correlated with fewer acts of aggression towards the professor and less hostility towards him/her. Perceptions of procedural injustice were likewise negatively related to aggression toward professor, hostility toward him/her, the likelihood that a student would resist a professor’s request using revenge, and deception. This phenomenon is currently problematic because of the sharp increase in narcissism in college students (d = .41 over 24 years; Twenge, Konrath, Foster, Campbell, & Bushman, 2008) and the direct relationship between narcissism and aggression (Bushman & Baumeister, 1998). Therefore, when a professor corrects the student, he or she feels may feel violated because of self-perceptions of greatness and authority. Because direct aggression is not often tolerated by instructors, students may choose to use evaluations as
a way to express aggression, feeling the whole time entirely justified by the perception of unfairness in the classroom.

*Indirect Aggression through Evaluations*

Course evaluations are often mandated by universities and utilized by administrators to determine promotions, tenure, and raises for instructors and professors as well as to attempt to improve the quality of the education and, also, by students to select courses (Wilhelm, 2004). However, the accuracy of course evaluations is questionable. Course evaluations have been found to reflect not only a student’s classroom experience but also outside influences and the student’s personal characteristics (d’Apollonia & Abrami, 1997; Marsh & Roche, 2000). Additionally, course evaluations establish an opportunity to express aggression toward an instructor. Because of the anonymity of the evaluation, the course evaluation allows a student to act aggressively without a threat of being identified or experiencing the consequences of being aggressive that would otherwise be applicable. This low-cost form of aggression may also have high dividends because students are often aware that their feedback influences decisions regarding faculty position. This gives students the perception of power, furthering the opportunity and drive to disguise aggression in the form of evaluation.

Problems with course evaluations are numerous and well documented in the literature. One serious problem with course evaluations is that students allow their evaluations of a course to be influenced by aspects other than teaching effectiveness. Remedios and Lieberman (2008) found that a student’s goals, course expectations, grades, and workload as well as course difficulty have a significant effect on course
evaluations. These and other researchers (e.g., Marsh & Roche, 2000) interpreted the results through a model that explains the covariance of grades and course evaluations as a function of the relationship between quality of instruction and learning. They argued that if an instructor is a good teacher, students will learn the material, attain high grades, and, therefore, will evaluate the course positively. Other researchers, however, argue that the relationship between quality instruction and grades earned by students is not the only, or even the most important, correlation. Instead, research indicates that academic performance predictors include study motivation, study skills and habits, and attitudes (Credé & Kuncel, 2008), cognitive ability and conscientiousness (Zyphur, Bradley, Landis, & Thoresen, 2008), and perceived control (Stupnisky et al., 2007).

Course evaluations are also influenced by preconceived ideas about a course and the instructor (Feldman & Prohaska, 1979; McNatt, 2010). Moreover, when students are manipulated into having positive or negative expectations about a lecturer, they are influenced in their performance on a measure of learning, their attitudes toward the lecturer, and their nonverbal behavior toward the lecturer based on those expectations (Feldman & Prohaska, 1979). In an experiment designed by Feldman and Prohaska (1979), confederates act as students who expect the teacher to be either effective or ineffective and thus influence participants to rate the teacher differently on the dimensions of lesson interest, lesson effectiveness, teacher competence, teacher intelligence, lesson difficulty, liking for teacher, teacher enthusiasm, performance, and nonverbal behavior (forward lean). Students value the evaluation of an instructor or course from students from the previous semester as the most trustworthy source of information above all other sources, including evaluations from other instructors, alumni,
advisors, and members of their own fraternity or sorority (Smither, Reilly, & Buda, 1988). When an instructor is teaching students who have negative expectations, the quality of the instruction suffers and a teacher’s attitudes and behaviors change. In the second experiment in their two-part study, Feldman and Prohaska (1979) found that student nonverbal behavior was directly correlated to teachers’ attitudes about themselves and their students as well as third-party observers’ ratings, suggesting that a student’s negative or positive expectations can produce the predicted outcome. In this experiment, the participant was the teacher and the confederate was the student who would use positive and negative nonverbal behaviors toward the teacher/participant in order to see if the teacher’s behavior would line up accordingly. The negative and positive behaviors affected the teacher’s (participant’s) self-ratings, teacher’s ratings of the student, and a third-party observation. Significant differences were found in self-rating in the areas of competence, happiness, warmth, and displeasure, in student performance rating in the areas of enthusiasm and how much the teacher liked the student, and finally, in the third-party observation of teacher adequacy. These results, in combination with studies that indicate that students trust a peer’s evaluation of a teacher/course, may be indicative of a vicious cycle of a negative report producing negative expectations that then produce inadequate teaching, leading to a negative report. Other influences of student evaluations include expected grade, ethnic background, gender, and age (Worthington, 2002) and mood and emotional states of students (Munz & Munz, 1997). Vaillancourt (2013) examined the relationship between narcissism, self-esteem, and students’ evaluation of teaching when receiving a poor grade and found that narcissism was negatively correlated with students’ evaluations of teaching but only when a student received a poor grade.
Clearly, these factors are outside of the instructors’ control, yet they may contribute to the tenure, promotion, and demotion instructors experience in their careers.

Students form opinions about instructors within the first few weeks of class that persist until the end of the semester (Buchert, Laws, Apperson, & Bregman, 2008). One study suggested that students’ impressions after the first class period remain stable until the end of the semester (Laws, Apperson, Buchert, & Bregman, 2010). Students who enter a class with a higher level of education tend to evaluate instructors more favorably than students who enter a class at introductory-level (Buchert et al., 2008; Laws et al., 2010). The presence of a mid-semester evaluation was found to make a difference in student perceptions of student evaluations of teaching (SETs) at the end of the semester (Brown, 2008). College students (n = 40) who took a mid-semester evaluation ranked evaluations as more important and effective at the end of the semester. The groups ranked statements such as *Students are honest in SETs, SETs are accurate, Students take SETs seriously*, and *SETs imply commitment to class* differently based on whether or not they took mid-semester evaluations. These results indicate that students who are given an opportunity to evaluate their instructors prior to the class ending may see their instructor in a more positive light (e.g., more committed to class) and, therefore, may rate the instructor more favorably at the end of the semester.

Grades and social relativity affect student evaluations. An individual’s grade in relation to a manipulated class average (10 points below or above the actual mean) affects evaluations (Norvilitis & Zhang, 2009). Results of this study demonstrated that if a student received a grade that was higher than the manipulated mean, he or she was likely to rate the instructor and course more highly than students who received a grade that was
lower than the manipulated mean. The researchers also proposed that students who received the higher manipulated class average would rate the instructor and course more favorably than those who received the lower manipulated class average. However, students who received the lower manipulated mean rated the instructor and course more positively than those who received the higher manipulated mean. This study indicates that students who compare their grades to others may be influenced to rate the instructor and course based on their relative standing against their peers and their own observations or calculated mean of their peers’ grades.

The anonymity of course evaluations allows students to state their concerns about an instructor without fear of retaliation. While the university may perceive this as a way to receive honest feedback about quality of instruction, this can also be a venue for indirect aggression towards an instructor. The invisibility (or the absence) of the person receiving the evaluation (i.e., the instructor) may increase the chances of the student acting aggressively (Ahmed, 1979). If a student feels as though he or she has been wronged by an instructor, the student may seek to retaliate against the instructor using the course evaluation as a tool for this. This system of feedback might be effective when a student has truly been a victim of the instructor’s aggression, unfair and unprovoked negative feedback, poor grading system, and other injustices in which the power-differential between an instructor and student prevents the student from defending him or herself. However, student perceptions of fair and unfair treatment are as vulnerable to irrelevant influence as any other opinion. Specifically, students may see themselves as victims if they receive negative feedback from an instructor even if it is deserved and administered in a professional manner. Negative feedback, in the form of a grade or oral
and written communication, is a necessity if professors are expected to shape their students and fairly evaluate their performance.

Using the justification mechanism for aggression, students may seek to retaliate against an instructor for a perceived wrong committed against them or another student. Students may employ defensive cognitive processes to rationalize the negative feedback that they offer their instructors. For example, if a student were to have a bias of hostile attribution, a tendency to observe hostility and danger in others’ behaviors, he may view an instructor’s negative feedback as an attack and “counter strike” with negative feedback to protect himself. Someone who has the bias of victimization by powerful others may see himself or herself as exploited by the education system when receiving a poor grade and decide to correct the injustice by evaluating the course negatively. Using these and other biases to justify aggression allows the students to give negative feedback to an instructor without feeling any shame or guilt and instead seeing themselves and their feedback as heroic or at least warranted. Additionally, because the feedback is usually anonymous, this aggression continues uncorrected and may build a basis for aggressive behavior later in life. This study will identify the relationship between falsely rational defenses for aggression and course evaluations.

Students may also inaccurately rate instructor’s overall performance according to one negative aspect of the classroom experience and vice versa, falling victim to the halo error or halo effect (Weiss & Cropanzano, 1996). A student may observe an instructor’s grading policy (i.e., the assignment of a poor grade) as unfair and therefore rate all aspects of the lecture negatively, not “[discriminating] among conceptually distinct and independent aspects of a ratee’s performance” (Pulakos, Schmitt, & Ostroff, 1986, p. 29).
Additionally, students may also perceive a relationship between two events when in fact no such relationship exists, yielding an illusory correlation effect (DeNisi, Cafferty, & Meglino, 1984). A student may see an instructor’s weakness in one area as related to a grade he or she received at the end of the semester, whereas the two are unrelated. Evaluations of instructors create a platform for the presence of rational-appearing aggression.

The current study examined the relationship between type of student feedback, student learning, and student lecture evaluations as a framework for understanding the propensity for an incidence of rational-appearing aggression in the academic environment in a population with narcissistic tendencies.

Research Hypotheses

Hypothesis 1a: Feedback group will affect lecture evaluations, state-level hostility, and state self-esteem such that students in the above-average feedback condition will have higher lecture evaluation averages, lower state-level hostility scores, and higher state self-esteem scores than students in the below-average feedback condition.

Hypothesis 1b: Participants scoring in the highest group on pathological and non-pathological narcissism (PNI and NPI) will have lower lecture evaluation averages when in the below-average feedback condition compared to all of the other conditions.

Hypothesis 2a: Perceived test score, actual test score, and lecture evaluation will positively correlate.

Hypothesis 2b: State self-esteem but not trait self-esteem (RSES) will correlate positively with actual test score, perceived test scores, and lecture evaluation.
Hypothesis 3a: There will be a two-way interaction, feedback group X perceived test score on lecture evaluation with individuals in the below-average feedback group who believe themselves to have received a high score rating the lecture more poorly than individuals who believed they did poorly and received confirming feedback.

Hypothesis 3b: There will be a two-way interaction, feedback group X actual test score on lecture evaluation with individuals who scored well on the test but received below-average feedback rating the lecture more poorly than individuals who did poorly and received appropriate feedback.

Hypothesis 4a: There will be three-way interactions, feedback group X perceived test score X narcissism (PNI Grandiosity, PNI Vulnerability, NPI Entitlement, NPI Superiority, NPI Vanity) on lecture evaluation with individuals in the below-average feedback group who also believe themselves to have received a high score and who have high levels of narcissism scoring lowest of all the groups on lecture evaluation.

Hypothesis 4b: There will be three-way interactions, feedback group X perceived test score X narcissism (PNI Grandiosity, PNI Vulnerability, NPI Entitlement, NPI Superiority, NPI Vanity) on state self-esteem (SSES Social) with individuals in the below-average feedback group who also believe themselves to have received a low score and who have high levels of narcissism scoring lowest of all the groups on state self-esteem.

Hypothesis 4c: There will be three-way interactions, feedback group X perceived test score X narcissism (PNI Grandiosity, PNI Vulnerability, NPI Entitlement, NPI Superiority, NPI Vanity) on negative affect (PANAS Hostility) with individuals in the below-average feedback group who also believe themselves to have received high scores
and who have high levels of narcissism scoring highest of all the groups on negative affect.

Hypothesis 5: Variables measuring aggression will correlate negatively with lecture evaluations, actual test scores, and perceived test scores such that trait-level aggression will correlate negatively with lecture evaluations and state-level hostility will correlate negatively with actual test scores and with perceived test scores.
CHAPTER II

METHODS

Participants

Undergraduate students (n = 359) from psychology classes were recruited for the study through The University of Southern Mississippi’s Psychology Research Participation System (http://usm.sona-systems.com). The program G*Power was used to determine the number of participants needed to reach the desired level of power (.80). Power was computed for small, medium, and large effects (Cohen estimates) for a 3-way ANOVA. The power analysis indicated that 52 participants would be needed for a large effect (.40), 128 participants would be needed for a medium effect (.25), and 787 participants would be needed for a small effect (.1). Participants were informed that they would receive class credit for participation. Students under the age of 18 were not eligible to participate. Approval from the Internal Review Board at the university was obtained before recruiting participants for this study.

Of the 359 students who signed up for the study, data was considered complete and usable for 232. Participants who took 19 minutes or less to complete all of the study requirements (n = 94) were eliminated because it was not feasible to complete all study requirements in such a short amount of time. Another three participants were eliminated based on the resemblance of their guesses to the actual the purpose of the study. Participants who responded in a random manner were identified if the difference between a repeated scale (GFIDR) was greater than two standard deviations (n = 20). Another eight individuals were excluded because of no response on the lecture evaluation. Two more individuals were eliminated because they scored a zero or a one on the quiz.
Of 232 participants included in the analyses, 23.7% were male. Participants had an average age of 21.09 (SD = 5.07). To simplify analyses, the seven options for racial identity available to participants were grouped together. Most participants self-identified as Caucasian (55.2%), with African Americans the second most populous group (37.9%), and other racial identities comprising the remaining 6.9%.

Measurements

*Measures of Narcissism and Self-Esteem*

The Narcissistic Personality Inventory-40 (Raskin & Terry, 1988) examines subclinical narcissistic characteristics using 40 self-report items. In original validity and reliability tests, alpha composite scores ranged from .74 to .90. Raskin and Hall (1981) found alternate forms had a reliability coefficient of .72 after administering an alternate form of the NPI eight weeks apart. Seven factors were identified: Authority, Self-sufficiency, Superiority, Exhibitionism, Exploitativeness, Vanity, and Entitlement. The NPI positively correlates with another measure of narcissism (r = .30, p< .001; Soyer, Rovenpor, Kopelman, Mullins, & Watson, 2001) and with the Eysenck Extraversion and Psychoticism scales (r = .23, ps< .05; Raskin & Hall, 1981). The researcher chose this measure to examine the relationships between overt narcissistic tendencies and covert narcissistic tendencies (measured by Pathological Narcissism Inventory), trait self-esteem (measured by Rosenberg Self-Esteem Scale), state self-esteem (measured by State Self-Esteem Scale), affect after manipulated grade is given (measured by Positive and Negative Affect Schedule – Expanded Form), aggressive tendencies (measured by Conditional Reasoning Test and Buss-Perry Aggression Questionnaire), and aggressive behavior (measured by lecture evaluation).
The Pathological Narcissism Inventory (PNI; Pincus et al., 2009) is a 52-item self-report measure identifying individuals’ scores across seven dimensions of pathological narcissism: Entitlement Rage, Exploitativeness, Grandiose Fantasy, Self-sacrificing/Self-enhancement, Contingent Self-esteem, Hiding the Self, and Devaluing. In the original tests for reliability and validity, the PNI correlated positively with the NPI (r = .13, p< .01). The PNI correlates with measures of aggression (r = .36, p< .01) and low moral values (r = .45, p< .01) and negatively correlates with self-esteem (r = -.37, p< .01) and empathy (r = -.14, p< .01). The researcher chose this measure of covert narcissistic characteristics to examine the relation with trait and state self-esteem, affect after manipulated grade is given, aggressive tendencies, and aggressive behavior.

The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) is a 10-item self-report measure that identifies individual differences in trait self-esteem. Some factor analyses show that the RSES has one factor, while other factor analysis results indicate two factors (Corwyn, 2000; Owens, 1993). The RSES positively correlates with a single-item measure of self-esteem (r = .75, p< .01; Robins, Hendin, & Trzesniewski, 2001) and negatively correlates with the MMPI-2 Low Self-Esteem Scale (rs = -.54 to -.73, p< .01; Brems & Loyd, 1995). The scale has been widely used and validated across many populations (e.g., Supple, Su, Plunkett, Peterson, & Bush, 2013). The researcher chose the RSES to examine the relationship with state self-esteem and trait self-esteem with the manipulated grade on the quiz as a variable of interest.

*Measures of Trait Aggression*

The Conditional Reasoning Test (CRT; James & McIntyre, 2000) is a 22-item questionnaire that measures one’s tendency to respond aggressively using rational
defenses for aggression. Each item includes a conditional reasoning problem with four possible responses, including one based on justification mechanisms, one based on prosocial motives, and two illogical answers. A high score on the CRT indicates that an individual employs justification mechanisms to guide reasoning and that he or she has an implicit tendency to justify aggressive behavior. Eleven initial validation studies were conducted to determine whether the CRT correlated with aggressive behaviors (e.g., attrition, absences, theft, lying/cheating). The average of the validity scores was .44 and reliability scores ranged from \( \alpha = .74 \) to \( \alpha = .85 \) (James et al., 2005). The Conditional Reasoning Test has empirical validity across a variety of samples, including undergraduates, restaurant/temporary employees, and patrol officers (James & LeBreton, 2010). High scores on this measure correlate with aggressive behaviors in these samples, including poor supervisory rating (\( r = .49, p < .05 \)), lack of class attendance (\( r = .37, p < .05 \)), lack of truthfulness about extra credit (\( r = .49, p < .05 \)), lack of work attendance (two samples: \( r = .42, p < .05 \); \( r = .34, p < .05 \)), student conduct violations (\( r = .55, p < .05 \)), attrition (\( r = .32, p < .05 \)), work unreliability (\( r = .43, p < .05 \)), theft (\( r = .64, p < .05 \)), hard fouls and fights in intramural basketball (\( r = .38, p < .05 \)), and lying and cheating in internet-based simulation (\( r = .40, p < .05 \)).

The CRT manual identifies a four-factor model (James & McIntyre, 2000) with items loading onto the first factor intended to measure the Retribution Bias’s role in reasoning, items loading onto the second factor measuring a person’s perception of dominance and control in authority figures, items loading onto the third factor assessing Potency Bias and Social Discounting Bias, and items loading onto the fourth and final factor assessing Willingness to Justify Hostility. All items are united by the over-arching
theme of an effort to increase the logic of the aggressive response. In the current study, high scores on the CRT should be related to high scores on the BPAQ and should be related to negative responses on the course evaluations. The researcher chose this measure to identify the relationship between implicit aggression and overt and covert characteristics of narcissism and aggressive behavior.

The Buss-Perry Aggression Questionnaire (BPAQ) is a 29-item questionnaire that measures respondents’ aggression in four domains: Physical Aggression, Verbal Aggression, Anger, and Hostility (Buss & Perry, 1992). Initial tests indicated that the overall internal consistency of the BPAQ is $\alpha = .89$. The alpha coefficients of the four factors are Physical Aggression $\alpha = .85$, Verbal Aggression $\alpha = .72$, Anger $\alpha = .83$, and Hostility $\alpha = .77$, indicating good internal consistency. Test-retest correlations for the BPAQ are overall $\alpha = .80$ and for the four factors $\alpha$s $= .80$, .76, .72, and .72, respectively. Buss and Perry (1992) reported the correlations of scores on the BPAQ and several personality traits, including emotionality ($r = .35$, $p$s not reported), impulsiveness ($r = .46$), assertiveness ($r = .43$), and competitiveness ($r = .46$). Also, self-esteem was negatively related to the domain of hostility ($r = -.49$), activity was positively related to the overall score for males only ($r = .25$), and private self-consciousness was positively related to the overall score for females only ($r = .25$). In the current study, the BPAQ should positively correlate to the CRT scores and negatively correlate to responses on the lecture evaluations.

**Measures of State Self-Esteem and Affect**

The State Self-Esteem Scale has 20 items that are scored on a 5-point scale ranging from *Not at all* to *Extremely* (Heatherton & Polivy, 1991). The measure includes
items like *I feel concerned about the impression I am making* and *I feel frustrated or rattled by my performance*. The SSES has a coefficient alpha of .92 for the whole measure and has three factors, *performance*, *social*, and *appearance*. The measure positively correlates with Rosenberg Self-Esteem Scale (*r* = .72, *p* < .05), Marlowe-Crowne Social Desirability Scale (*r* = .27, *p* < .05), and satisfaction with height and current figure (*rs* = .40 and .54, *ps* < .05) and negatively correlates with Beck Depression Inventory (*r* = -.71, *p* < .05), Trait Anxiety scale (*r* = -.59, *p* < .05), state depression (*r* = -.59, *p* < .05), state hostility (*r* = -.30, *p* < .05), and Dietary Restraint Scale (*r* = .42, *p* < .05).

The researcher chose this scale to examine the relationship between state self-esteem and trait self-esteem. Also, state self-esteem was used to co-vary with narcissism.

The Positive and Negative Affect Schedule – Expanded Form (PANAS) (Watson & Clark, 1994) measures current emotional state by listing 60 words (e.g., excited, hostile, proud) and asking participants to rate the extent to which they feel or have felt this way on a 5-point scale (*very slightly or not at all* to *extremely*). The scale uses eight different temporal situations, including Moment instructions (*right now [that is, at the present moment]*) and Month instructions (*during the past month*). The measure has two separate scales (Positive Affect and Negative Affect) and these two scales have internal consistency reliabilities (coefficient alphas) ranging from .84 to .91 in numerous populations and varied temporal instructions. Subscales of this measure positively correlate with subscales of the Profile of Mood States (*rs* = .85-.91, *ps* < .01). Convergent self-peer correlations ranged from .27 to .52 (*ps* < .01) on seven out of the eight examined subscales (Watson & Clark, 1991). Because the researcher wanted to identify how the
individual felt after completing the lecture quiz and receiving the manipulated grade, the Moment instructions were used.

**Validity Measure**

The Gender-Free Inventory of Desirable Responding (GFIDR) is a 10-item measure that determines the extent to which social desirability impacts a participant’s responding to other self-report measures, including the course evaluation (Becker & Cherny, 1994). In initial tests, overall inter-item reliability was $\alpha = .68$ (Becker & Cherny; 1994). Also, Becker (2007) notes that the GFIDR inversely correlates with each item on the Buss-Perry Aggression Questionnaire. In the current study, the GFIDR scores should be inversely related to the BPAQ and should not be related to the course evaluations. Additionally, GFIDR was repeated to aid in eliminating random responses.

**Procedures**

Participants were recruited through the university’s online research system hosted at http://usm.sona-systems.com. Recruitment wording (e.g., *above average*) targeted a sample scoring high on the measures of narcissism or individuals who self-identify as above average. Researchers asked for volunteers to participate in a study on the “effects of teaching style on learning in above average students.” Upon completion of the first eight measures listed below, respondents were asked to watch a 7-minute lecture similar to what a student might hear in an introductory speech class and respond to a quiz on the lecture. The quiz included nine multiple-choice questions that can be objectively scored and a question asking how many items the participant believes he or she answered correctly. Participants were told that the research concerns the impact of different teaching styles on learning. The deception is necessary to ensure that students engage in
the material and evaluate the lecturer appropriately. Participants were then randomly assigned to a condition and assigned a grade on the quiz.

1. Student was told he/she has an average score on the quiz (6 out of 9).
2. Student was told he/she has a below average score on the quiz (4 out of 9) and that the average score is 6.
3. Student was told he/she has an above average score on the quiz (8 out of 9) and that the average score is 6.

Participants were asked to complete two additional measures that identified their current state self-esteem and affect. Participants were then asked to complete a lecture evaluation, which is based on The University of Southern Mississippi’s course feedback form and has been modified for use with a single lecture. After data collection was complete, participants were asked a series of questions to establish validity. An email was sent to all participants upon completion of the study with information about the deception, and students were given the option to withdraw data from the study.

The following measures were completed online by all students who agreed to participate in the study:

- A brief demographics questionnaire (4 questions)
- Narcissistic Personality Inventory (40 questions)
- Pathological Narcissism Inventory (52 questions)
- Rosenberg Self-Esteem Scale (10 questions)
- The Conditional Reasoning Test (25 questions)
- The Gender-Free Inventory of Desirable Responding (10 questions)
- The Buss-Perry Aggression Questionnaire (29 questions)
• (Lecture here)
• Quiz (10 questions)
• Positive and Negative Affect Schedule – Expanded Form (60 questions)
• State Self-Esteem Scale (20 questions)
• Lecture evaluation (11 questions)
• Validity Questionnaire (7 questions)
CHAPTER III
RESULTS

Analyses

*Potential Demographic Confounds and Covariates*

In order to assess demographic variables for their potential as confounds and covariates, a series of analyses were conducted. Results from a 2 (male, female) X 3 (above average, average, below average) Chi Square, located in Table 1, indicated no gender by feedback group association. Likewise, results from a 3 (White, Black, other) X 3 (above average, average, below average) Chi Square, located in Table 2, indicated no race X feedback group association, demonstrating that demographic variables were not confounded with the feedback group manipulation.

Table 1

*Gender X Feedback Group*

<table>
<thead>
<tr>
<th>Feedback Group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Chi Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Average</td>
<td>18</td>
<td>61</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>13</td>
<td>58</td>
<td>71</td>
<td>$\chi^2(2) = 2.58$</td>
</tr>
<tr>
<td>Below Average</td>
<td>24</td>
<td>58</td>
<td>82</td>
<td>$p = .28$</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>177</td>
<td>232</td>
<td></td>
</tr>
</tbody>
</table>
### Table 2

*Race X Feedback Group*

<table>
<thead>
<tr>
<th>Feedback Group</th>
<th>White</th>
<th>Black</th>
<th>Other</th>
<th>Total</th>
<th>Chi Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Average</td>
<td>48</td>
<td>26</td>
<td>5</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>30</td>
<td>37</td>
<td>4</td>
<td>71</td>
<td>$\chi^2(2) = 9.10$</td>
</tr>
<tr>
<td>Below Average</td>
<td>50</td>
<td>25</td>
<td>7</td>
<td>82</td>
<td>$p = .06$</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>88</td>
<td>16</td>
<td>232</td>
<td></td>
</tr>
</tbody>
</table>

A series of one-way ANOVAs with feedback group as the independent variable and the other independent variables serving as dependent variables for these analyses of confounds indicated no significant feedback group effect on explicit aggression [$F(2,229) = .43, p = .65$], trait self-esteem [$F(2,229) = .52, p = .59$], non-pathological narcissism [$F(2,229) = 2.97, p = .053$; $M_{\text{below average}} = 2.81$, $M_{\text{average}} = 2.81$, $M_{\text{above average}} = 3.22$], and pathological narcissism [$F(2,228) = .86, p = .43$]. Taken together, these results indicate that the independent variables are not confounded with the dependent variables. Non-pathological narcissism was somewhat, although not significantly, related to feedback group.

Regarding covariates, there were no gender [$F(1, 230) = .80, p = .37$] or race [$F(2, 229) = .59, p = .56$] differences on lecture evaluation, the primary dependent variable, indicating that these variables do not need to be used as covariates in the analyses.
Tables 3 and 4 are R matrices containing descriptives for and simple correlations among the remaining variables used as independent (Table 3) and dependent (Table 4) variables.

Table 3

*Descriptives for and Simple Correlations among the Independent Variables*

<table>
<thead>
<tr>
<th>IV’s</th>
<th>Mean (SD)</th>
<th>Sample Size</th>
<th>BPAQ</th>
<th>RSES</th>
<th>NPI</th>
<th>PNI</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT-A</td>
<td>5.28 (2.27)</td>
<td>232 (0.0-12.0)</td>
<td>.15*</td>
<td>-.20**</td>
<td>-.02</td>
<td>.13</td>
</tr>
<tr>
<td>GFIDR</td>
<td>3.22 (0.59)</td>
<td>232 (1.10-4.70)</td>
<td>-.37**</td>
<td>.37**</td>
<td>-.04</td>
<td>-.48**</td>
</tr>
<tr>
<td>BPAQ</td>
<td>9.85 (2.38)</td>
<td>232 (4.90-18.98)</td>
<td>--</td>
<td>-.30**</td>
<td>.22**</td>
<td>.44**</td>
</tr>
<tr>
<td>RSES</td>
<td>3.21 (0.57)</td>
<td>232 (1.0-4.0)</td>
<td>--</td>
<td>.06</td>
<td></td>
<td>-.36**</td>
</tr>
<tr>
<td>NPI</td>
<td>2.95 (1.21)</td>
<td>232 (.33-6.19)</td>
<td>--</td>
<td></td>
<td></td>
<td>.17**</td>
</tr>
<tr>
<td>PNI</td>
<td>3.29 (0.79)</td>
<td>231 (1.0-5.67)</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05  ** p < .01
### Table 4

*Descriptives for and Simple Correlations among the Dependent Variables*

<table>
<thead>
<tr>
<th>DV’s</th>
<th>Mean (SD) Sample Size</th>
<th>Actual Test Score</th>
<th>Perceived Test Score</th>
<th>PANAS Negative Affect</th>
<th>PANAS Positive Affect</th>
<th>SSES Social</th>
<th>SSES Performance</th>
<th>SSES Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Evaluation</td>
<td>3.14 (0.51) 232</td>
<td>.21** .10</td>
<td>-.15*</td>
<td>.15*</td>
<td>.04</td>
<td>.20**</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>Actual Test Score</td>
<td>5.83 (1.82) 232</td>
<td>.41** -.27**</td>
<td>-.06</td>
<td>.13</td>
<td>.24**</td>
<td>.079</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PANAS Negative Affect</td>
<td>2.66 (.99) 232</td>
<td>-.01 -.02</td>
<td>.08</td>
<td>.10</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PANAS Positive Affect</td>
<td>1.88 (0.86) 232</td>
<td>.15* -.52**</td>
<td>-.57**</td>
<td>-.32**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSES Social</td>
<td>2.83 (0.94) 232</td>
<td>-.01 -.02</td>
<td>.08</td>
<td>.10</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4 (continued).

<table>
<thead>
<tr>
<th>DV’s</th>
<th>Mean (SD) Sample Size</th>
<th>Min. and Max.</th>
<th>Actual Test Score</th>
<th>Perceived Test Score</th>
<th>PANAS Negative Affect</th>
<th>PANAS Positive Affect</th>
<th>SSES Social Performance</th>
<th>SSES Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSES Performance</td>
<td>3.44 (0.86)</td>
<td>232</td>
<td>1.0-5.0</td>
<td></td>
<td></td>
<td></td>
<td>.62**</td>
<td>.56**</td>
</tr>
<tr>
<td>SSES Appearance</td>
<td>3.68 (0.73)</td>
<td>232</td>
<td>1.0-5.0</td>
<td></td>
<td></td>
<td></td>
<td>.47**</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05  ** p < .01

Table 5 lists results from t-tests of the differences between males and females on the independent variables and dependent variables in the study. There was a significant difference on the PANAS Positive Affect subscale with males scoring higher than females. No other significant differences were found.

Table 6 contains results from one-way ANOVAs evaluating race differences on independent and dependent variables. A significant race difference was found on the Narcissistic Personality Inventory. Tukey’s HSD post-hoc analyses showed a difference between Caucasian and African American participants with African American participants scoring higher on the NPI. Because of this difference, the researcher grouped participants as low (33%), average (33%), and high (33%) on NPI scores within race groups: Caucasian, African American, and other. Cut points are listed in Table 7.
Table 5

*Gender Differences on Independent Variables and Dependent Variables*

<table>
<thead>
<tr>
<th>IV’s and DV’s</th>
<th>t score</th>
<th>Means (M, F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT-A</td>
<td>1.93</td>
<td>5.80; 5.11</td>
</tr>
<tr>
<td>BPAQ</td>
<td>1.33</td>
<td>10.23; 9.73</td>
</tr>
<tr>
<td>RSES</td>
<td>.83</td>
<td>3.26; 3.19</td>
</tr>
<tr>
<td>NPI</td>
<td>.64</td>
<td>3.05; 2.92</td>
</tr>
<tr>
<td>PNI</td>
<td>-.101</td>
<td>3.30; 3.42</td>
</tr>
<tr>
<td>Lecture Evaluation</td>
<td>-.98</td>
<td>3.09; 3.16</td>
</tr>
<tr>
<td>Actual Test Score</td>
<td>1.38</td>
<td>6.13; 5.73</td>
</tr>
<tr>
<td>PANAS Negative Affect</td>
<td>.94</td>
<td>1.98; 1.85</td>
</tr>
<tr>
<td>PANAS Positive Affect</td>
<td>3.62**</td>
<td>3.22; 2.70</td>
</tr>
<tr>
<td>SSES Social</td>
<td>1.39</td>
<td>3.58; 3.40</td>
</tr>
<tr>
<td>SSES Performance</td>
<td>1.46</td>
<td>3.80; 3.63</td>
</tr>
<tr>
<td>SSES Appearance</td>
<td>1.72</td>
<td>3.50; 3.30</td>
</tr>
</tbody>
</table>

* *p < .05 **p < .01
Table 6

*Race Differences on Independent and Dependent Variables*

<table>
<thead>
<tr>
<th>IV’s and DV’s</th>
<th>F (df&lt;sub&gt;between&lt;/sub&gt;,df&lt;sub&gt;within&lt;/sub&gt;)</th>
<th>Means (White, Black, Other)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT-A</td>
<td>.74 (2, 231)</td>
<td>5.17; 5.5; 4.94</td>
</tr>
<tr>
<td>BPAQ</td>
<td>3.16 (2, 231)</td>
<td>9.50; 10.32; 10.03</td>
</tr>
<tr>
<td>RSES</td>
<td>1.35 (2, 231)</td>
<td>3.16; 3.29; 3.17</td>
</tr>
<tr>
<td>NPI</td>
<td>10.89** (2, 231)</td>
<td>2.65; 3.40; 2.83</td>
</tr>
<tr>
<td>PNI</td>
<td>.11 (2, 230)</td>
<td>3.41; 3.38; 3.32</td>
</tr>
<tr>
<td>Lecture Evaluation</td>
<td>.59 (2, 231)</td>
<td>3.15; 3.16; 3.00</td>
</tr>
<tr>
<td>Actual Test Score</td>
<td>1.93 (2, 231)</td>
<td>6.03; 5.61; 5.38</td>
</tr>
<tr>
<td>PANAS Negative Affect</td>
<td>.475 (2, 231)</td>
<td>1.83; 1.95; 1.86</td>
</tr>
<tr>
<td>PANAS Positive Affect</td>
<td>3.02 (2, 231)</td>
<td>2.73; 3.02; 2.61</td>
</tr>
<tr>
<td>SSES Social</td>
<td>1.90 (2, 231)</td>
<td>3.44; 3.47; 3.26</td>
</tr>
<tr>
<td>SSES Performance</td>
<td>1.06 (2, 231)</td>
<td>3.65; 3.75; 3.50</td>
</tr>
<tr>
<td>SSES Appearance</td>
<td>.40 (2, 231)</td>
<td>3.32; 3.433.07</td>
</tr>
</tbody>
</table>

* * p < .05 ** p < .01
Table 7

Cut Points for Grouping NPI by Race

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cut Points</td>
<td>n</td>
<td>Cut Points</td>
<td>n</td>
<td>Cut Points</td>
<td>n</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>.33-2.11</td>
<td>44</td>
<td>1.00-3.00</td>
<td>31</td>
<td>.53-2.20</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>2.13-3.19</td>
<td>44</td>
<td>3.03-3.93</td>
<td>30</td>
<td>2.58-3.45</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>3.21-6.19</td>
<td>40</td>
<td>3.96-5.85</td>
<td>27</td>
<td>3.60-5.12</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8 is a list of correlations between independent variables and dependent variables examined in the research hypotheses. As expected, there was a significant correlation between non-pathological (Narcissistic Personality Inventory) and pathological narcissism (Pathological Narcissism Inventory; $r = .17$, $p = .008$). Also, trait self-esteem, as measured by Rosenberg Self-Esteem Scale and some subscales on the measures of narcissism were correlated in ways that were expected. Generally, these relationships support what has been documented in the literature (see Table 8).

Table 8

Correlations between Independent Variables and Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 NPI</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 NPI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Entitlement
Table 8 (continued).

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>NPI</td>
<td>Superiority</td>
<td>3</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>NPI</td>
<td>Vanity</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>PNI</td>
<td></td>
<td>5</td>
<td>+</td>
<td>+</td>
<td></td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>PNI</td>
<td>Grandiosity</td>
<td></td>
<td>6</td>
<td>+</td>
<td>+</td>
<td></td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>PNI</td>
<td>Vulnerability</td>
<td></td>
<td>7</td>
<td>+</td>
<td>+</td>
<td></td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>CRT-A</td>
<td></td>
<td>8</td>
<td>+</td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>BPAQ</td>
<td></td>
<td>9</td>
<td>-</td>
<td>-</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>RSES</td>
<td></td>
<td>10</td>
<td>+</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>SSES</td>
<td>social</td>
<td></td>
<td>11</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>PANAS</td>
<td>Hostility</td>
<td></td>
<td>12</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Test Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Lecture Evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Main Analyses**

In order to examine Hypotheses 1 through 5, a series of correlations and feedback group X narcissism X perceived test score three-way ANOVAS were conducted with lecture evaluation, state self-esteem (social), and hostility as separate dependent variables. For the following analyses, subscale narcissism variables (pathological, non-pathological narcissism) were binned using two cut points in most cases (NPI...
Entitlement, NPI Superiority, PNI Grandiosity, PNI Vulnerability), leaving approximately 33% of the cases in each of three groups, and four cutpoints for NPI Vanity, leaving approximately 25% of the cases in each of four groups. NPI Vanity had different cutpoints because the distribution had four relatively similar modal values.

With regard to Hypothesis 1a, assessing the effect of feedback group on lecture evaluations, results from five three-way ANOVAs indicated significant main effects of feedback group in all analyses except when NPI Vanity was the personality IV [Fs(2,196-205) ranging from to 2.46 to 6.48 with all ps< .09]. Tukey’s HSD indicated that those who were in the above average feedback group evaluated the lecture more positively (M = 3.28, SD = .55) than those who were in the average (M = 3.08, SD = .43) or below average (M = 3.06, SD = .53) feedback groups (Figure 1).

Concerning the effect of feedback group on state-level aggression (PANAS Hostility), a one-way ANOVA was conducted. Results indicated no mean differences on hostility (F(2,231) = .002, p = .99) as a function of feedback group.

Regarding the differential relations of test scores and lecture evaluations with state self-esteem (SSES) versus trait self-esteem (RSES), a series of 12 Pearson’s r correlations were conducted (Table 9). State self-esteem was related to actual test score and to lecture evaluation, whereas trait self-esteem was not related to any of the test score or lecture evaluation variables.
Figure 1. Effect of Feedback Group (Below Average, Average, and Above Average) on Lecture Evaluation.

Table 9

Correlations of Perceived Test Scores, Actual Test Scores, and Lecture Evaluations with Self-Esteem Measures

<table>
<thead>
<tr>
<th></th>
<th>Perceived Test Scores</th>
<th>Actual Test Scores</th>
<th>Lecture Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSES Performance</td>
<td>.10</td>
<td>.24**</td>
<td>.20**</td>
</tr>
<tr>
<td>SSES Appearance</td>
<td>-.03</td>
<td>.08</td>
<td>.11</td>
</tr>
<tr>
<td>SSES Social</td>
<td>.08</td>
<td>.13</td>
<td>.04</td>
</tr>
<tr>
<td>RSES</td>
<td>-.04</td>
<td>.11</td>
<td>.08</td>
</tr>
</tbody>
</table>

* p < .05  ** p < .01

With regard to Hypothesis 1b, results from the feedback group X narcissism scales on lecture evaluation did not indicate a significant interaction.
Concerning Hypothesis 2a, regarding the relation between lecture evaluation and the two test score variables (perceived test score and actual test score), results indicated a significant correlation only between actual test score and lecture evaluation ($r = .21, p = .001$). Concerning the relation between perceived test score and actual test score, there was a significant correlation between the variables with higher perceived scores related to higher actual scores ($r = .41, p < .001$).

In order to examine Hypothesis 2b, regarding the differential effect of feedback group on state self-esteem (SSES) but not trait self-esteem (RSES), four one-way ANOVAs were conducted (Table 10). Results indicated no significant mean differences on state or trait self-esteem as a function of feedback.

Table 10

*Differences among Feedback Groups on Self-Esteem Measures*

<table>
<thead>
<tr>
<th>Self-Esteem Scale</th>
<th>F (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSES Performance</td>
<td>2.92 (2, 231)</td>
</tr>
<tr>
<td>SSES Appearance</td>
<td>.63 (2, 231)</td>
</tr>
<tr>
<td>SSES Social</td>
<td>1.06 (2, 231)</td>
</tr>
<tr>
<td>RSES</td>
<td>.52 (2, 231)</td>
</tr>
</tbody>
</table>

Regarding Hypothesis 3a, concerning the two-way interaction between feedback group X perceived test score on lecture evaluation, an ANOVA was conducted and indicated no significant interaction.
Regarding Hypothesis 3b, concerning a two-way interaction between feedback group X actual test score on lecture evaluation, a two-way ANOVA was conducted and indicated no significant interaction.

Hypothesis 4a had to do with three-way interactions among feedback group, narcissism, and perceived test score on lecture evaluations. Results indicated three-way interactions of feedback group and perceived test score with PNI Grandiosity \( [F(12, 195) = 2.06, p = .02] \) and PNI Vulnerability \( [F(12, 195) = 1.91, p = .04] \). Simple two-way interactions, PNI Grandiosity X perceived test score at each level of feedback group were not detectable, however. There was a main effect of PNI Grandiosity \( [F(2, 195) = 4.45, p = .01] \) with Tukey’s HSD indicating mean differences in lecture evaluation between individuals scoring higher (\( M = 3.27, SD = .57 \)) versus low (\( M = 3.04, SD = .59 \)) on Grandiosity. Results are plotted below in Figure 2.

Figure 2. Effects on Perception of Test Scores and Levels of PNI Grandiosity (Low, Moderate, High) at Each level of Feedback Group (Above Average, Average, Below Average) on Lecture Evaluations.

Simple two-way interactions, PNI Vulnerability X perceived test score at each level of feedback group were not detectable (See Figure 3).
regarding Hypothesis 4b, having to do with a three-way interaction among feedback group, narcissism and perceived test score on state self-esteem, results indicated a three-way interaction of feedback group and perceived test score with NPI Vanity on SSES Social [F(18, 184) = 2.20, p = .005]. Simple two-way interactions, NPI Vanity X perceived test score at each level of feedback group indicated a two-way interaction only for the average feedback group [F(9,55) = 2.22, p = .05]. Analyses of simple effects of perceived test score at each level of NPI Vanity indicated differences of perceived test scores (M_{LowPTS} = 3.65, \ M_{ModLowPTS} = 2.43, \ M_{ModHighPTS} = 3.3, \ M_{High} = 2.81) on SSES Social only at low levels of NPI Vanity (see Figure 4).
Hypothesis 4c concerned the three-way interactions, feedback group X perceived test score X narcissism (PNI Grandiosity, PNI Vulnerability, NPI Entitlement, NPI Superiority, NPI Vanity) on negative affect (PANAS Hostility). Results indicated a three-way interaction with NPI Vanity $[F(18, 184) = 1.92, p = .02]$. Analyses of simple interactions indicated significant two-way interactions for the below average feedback $[F(9,66) = 2.10, p = .04]$ and average feedback $[F(9,55) = 2.37, p = .024]$ groups (see Figure 5).

**Figure 4.** Effects on Perception of Test Scores and Levels of NPI Vanity (Low, Moderate Low, Moderate High, High) at Each Level of Feedback Group (Above Average, Average, Below Average) on State Self-Esteem Scores (SSES Social).

**Figure 5.** Effects on Perception of Test Scores and Levels of NPI Vanity (Low, Moderate Low, Moderate High, High) at Each Level of Feedback Group (Above Average, Average, Below Average) on State Hostility (PANAS Hostility).
To examine Hypothesis 5, regarding relations between lecture evaluation, perceived test score, and actual test score with trait-level and state-level hostility variables (CRT, BPAQ, and PANAS Hostility), correlations were computed with lecture evaluation and CRT aggression negatively related ($r = -.16$, $p = .01$) and CRT non-aggression positively related ($r = .15$, $p = .02$; all other $r$ values $\leq .08$). Test scores (actual and perceived) were correlated with state-level hostility with results indicating a negative relation between hostility and actual test scores ($r = -.27$, $p < .001$) but no significant relation between hostility and perceived test score.

Table 11 presents a summary of hypotheses and whether or not the results confirmed, partially confirmed, or did not confirm each hypothesis.

**Table 11**

*Hypothesis Confirmation Status*

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Confirmation Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1a: Feedback group will affect lecture evaluations, state-level hostility, and state self-esteem.</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>Hypothesis 1b: Participants scoring in the highest group on pathological and non-pathological narcissism (PNI and NPI) will have lower lecture evaluation averages when in the below-average feedback condition.</td>
<td>Not Confirmed</td>
</tr>
<tr>
<td>Hypothesis 2a: Perceived test score, actual test score, and lecture evaluation will positively correlate.</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>Hypothesis 2b: State self-esteem but not trait self-esteem (RSES) will correlate positively with actual test score, perceived test scores, and lecture evaluation.</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>Confirmation Status</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Hypothesis 3a: There will be a two-way interaction, feedback group X</td>
<td>Not confirmed</td>
</tr>
<tr>
<td>perceived test score on lecture evaluation.</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 3b: There will be a two-way interaction, feedback group X</td>
<td>Not Confirmed</td>
</tr>
<tr>
<td>actual test score on lecture evaluation.</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 4a: There will be three-way interactions, feedback group X</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>perceived test score X narcissism on lecture evaluation.</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 4b: There will be three-way interactions, feedback group X</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>perceived test score X narcissism on state self-esteem.</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 4c: There will be three-way interactions, feedback group X</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>perceived test score X narcissism on negative affect.</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 5: Variables measuring aggression will correlate negatively</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>with lecture evaluations, actual test scores, and perceived test</td>
<td></td>
</tr>
<tr>
<td>scores.</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER IV
DISCUSSION

Summary

Taking direction from the body of literature regarding narcissism and aggression, multiple measures of narcissism and both behavioral and self-report indicators of aggression were used in this study of the differential impact of provocation on aggressive behavior as a function of the level of narcissism. In order to ensure that there were a variety of scores, with some participants scoring relatively high on levels of narcissism, the researcher recruited participants by requesting individuals to respond to a solicitation for study participants who were “above average.” The deception appeared to be effective with only three participants guessing that the study had something to do with aggression.

Rational-appearing aggression was operationalized as lowered responses on a student evaluation form of a video-taped instructor giving a lecture that occurred following a poor performance on a test or perceptions of poor test performance or feedback of below average test performance. Ecological validity was maximized in this operationalization of rational-appearing aggression in this setting by using a minimally modified form of an actual student evaluation, a measure that is commonly encountered by university students. Researchers randomly assigned students to three different normative feedback conditions in which participants were told that they performed above average, average or below average on a quiz. This study employed normative feedback because Barry et al. (2006) found normative feedback to be more effective at provoking aggression than ipsative feedback. As a function of feedback condition, participants rated the instructor’s lecture differently, with students who were in the above average feedback
condition rating the lecture more positively ($M = 3.28$, $SD = .55$) than students who received average ($M = 3.08$, $SD = .43$) or below average ($M = 3.06$, $SD = .53$) feedback. Furthermore, students’ performance on the quiz affected how they rated the lecture, with students who performed poorly on the quiz rating the lecture more poorly ($M = 3.02$, $SD = .52$) than those who performed well on the quiz ($M = 3.28$, $SD = .47$). These differences in ratings of the same video of a lecture indicate that student evaluations as indicators of lecture or course quality, although widely used, are suspect.

A particular strength of this study was the use of two scales of narcissism that reportedly measured distinct yet related characteristics of narcissism. The Narcissistic Personality Inventory was developed with the goal of identifying those characteristics that most individuals view as narcissism. However, this measure incompletely defined narcissism, leaving out the more negative narcissistic tendencies. Recently, the Pathological Narcissism Inventory was developed to capture those tendencies of grandiosity, previously viewed as characteristics defining narcissism, as well as those of vulnerability, encompassing the more maladaptive traits of a narcissistic individual, including anger, aggression, low self-esteem, and social avoidance. Both measures were developed using a college population. A second strength of the study was the focus on believability. The video of the lecture remained a constant throughout the study, with an instructor who seemed likeable and who interacted with students in the classroom in a seemingly natural way (e.g., through questions and answers).

Given the rise of narcissism and its reported relation to aggression, an important question may be why aggressive behavior is more prevalent in those who have narcissistic tendencies. Past studies have identified insults, criticism, and rejection as
possible provocations for narcissistic rage but have not identified thought processes behind aggressive behaviors. One possibility explored by this study was the relationship between those who self-report narcissistic tendencies and who report a likelihood to view ambiguous situations as opportunities to behave aggressively. This relationship was partially confirmed through a positive correlation between scores on the Conditional Reasoning Test and the PNI scale of Vulnerability ($r = .18, p = .008$). However, results did not indicate a relationship between the scale of vulnerability and evaluation of the lecture.

Interestingly, there was a negative correlation between the measure of implicit aggression and the lecture evaluation ($r = -.16, p < .05$) but not between scales of explicit aggression and the lecture evaluation. These findings imply that those who have a tendency to view ambiguous situations as opportunities for aggression are more likely to rate a lecture poorly than those who do not share this perspective. Further, individuals who self-report aggressive feelings and behaviors do not necessarily behave more aggressively in seemingly neutral situations than those who do not report these behaviors.

The researcher hypothesized that perceived and actual injustice would affect the evaluation of the lecture. However, results indicated that while normative feedback and actual test scores affected the evaluations, there was no interaction between the two. Furthermore, perceived performance had no effect on the evaluation, and there was no interaction between this variable and normative feedback given. In this study, actual and perceived injustice did not affect students’ level of aggression as measured by evaluations of the lecture.
Findings indicate that student evaluations may not be the ideal indicator for how well a professor performs classroom duties, as students’ opinions appear to be swayed by variables other than a professor’s competent coverage of a topic or fair evaluation of course knowledge. Specifically, student evaluations are influenced by the assignment of grades and by the student’s own performance on the graded tasks. Therefore, one may conclude that giving easy tests and good grades will result in higher evaluations. Because good student evaluations are often required for tenure and promotion, professors may be inclined to inflate grades based on their desire to keep their jobs. This is a precarious situation in academia, as content knowledge in the United States, especially in math and science, appears to be declining (Sykes, 1996).

Student evaluations are just one means of perpetuating rational-appearing aggression. Not only can individual and groups of students use evaluations to aggress against a professor, but supervisors who have aggressive tendencies may also use course evaluations to target faculty in a way that appears rational. The results of this study are applicable not only to the university setting, but also to small and large organizations. Because work evaluations are subject to variables other than performance at work, any work evaluation without a system in place to check the veracity of the evaluation creates an opportunity for rational-appearing aggression to occur and to grow into a situation of mobbing. When evaluations are used to determine raises, promotions, assignments, or even employment, checks on the veracity of the evaluations are necessary to prevent targeting and mobbing of individual employees. The results of this study indicate that because an evaluation is subject to another person’s aggressive tendencies, it is negligent
on the part of the organization at best, and unethical at worst to use evaluations that lack an objective system of checks and balances.
APPENDIX A

INSTITUTIONAL REVIEW BOARD NOTICE OF COMMITTEE ACTION

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months.
- Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: CH-R11101711
PROJECT TITLE: Rational Appearing Aggression
PROJECT TYPE: Change to a Previously Approved Project
RESEARCHER(S): Shirley Hodges
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: Psychology
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 04/17/2014 to 04/16/2015

Lawrence A. Hosman, Ph.D.
Institutional Review Board
APPENDIX B

INFORMED CONSENT FORM

1. **Purpose:** The purpose of this study is to identify the effects of teaching style on student learning.

2. **Description of Study:** This is a two-part study. In the first part of the study, we will be collecting data on personality and other individual differences that may be related to learning. In the second part of the study, you will be asked to watch a 7-minute lecture followed by a quiz on the lecture material and an evaluation of the lecture. You should expect the entire procedure, including questionnaires, to last about an hour. **You must be 18 years of age or older to participate in this study. If you are not 18 please notify the experimenter that you cannot participate so that you may be excused.**

3. **Benefits:** Engaging in this experiment will allow you to meet class requirements for research credit.

4. **Risks:** The present study presents no more than minimal risk, or the risk one would incur in the course of daily life. In the event that you find this experiment upsetting, the following mental health options may be used: [the Student Counseling Center (601) 266-4829, the Gutsch Counseling Clinic (601) 266-4601, the USM Psychology Clinic (601) 266-4588, Pine Grove Recovery Center (601) 288-4800, and Pine Belt Mental Healthcare Resources at (601) 544-4641]. If problems arise please email either Shirley Hodges at Shirley.Hodges@eagles.usm.edu or Dr. Tammy Greer at tammy.greer@usm.edu.

5. **Confidentiality:** You will not be asked to identify yourself on the self-report questionnaires you complete. You will be required to electronically sign a consent form, which will be kept as a record of participation. Consent forms will be kept separate from questionnaire data so information cannot be matched to identities. Once all data have been entered into a database, the original data collection documents will be deleted to maintain the confidentiality of participants.

6. **Alternative Procedures:** Participation in this study is voluntary and there are several other research projects available for students to engage in and complete for research credit. Anyone not wishing to participate in research may fulfill research requirements through alternative means. Also, if at any time during the study you begin to feel uncomfortable you may leave and no penalty will be assessed.

7. **Participant’s Assurance:** Whereas no assurance can be made concerning results that may be obtained (since results from investigational studies cannot be predicted) the researcher will take every precaution consistent with the best scientific practice. The University of Southern Mississippi has no mechanism to provide compensation for subjects who may incur injuries as a result of participating in research projects. However, efforts will be made to make available the facilities and professional skills at the University. Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Questions concerning the research should be directed to Shirley Hodges at Shirley.Hodges@eagles.usm.edu or Dr. Tammy Greer at tammy.greer@usm.edu. This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820. You will be given a copy of this form.

<table>
<thead>
<tr>
<th>Signature of Research Participant</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature of Researcher</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C
BRIEF DEMOGRAPHICS QUESTIONNAIRE

Instructions: Please answer the following questions by circling the letter associated with your correct answer.

1. What is your sex?
   a. Male
   b. Female

2. What is your age? __

3. What is your race?
   a. White
   b. White, Non-Hispanic
   c. African American
   d. Hispanic
   e. Asian/Pacific Islander
   g. Native American
   h. Other

4. What is the highest level of education you have completed?
   a. Freshman year completed
   b. Sophomore year completed
   c. Junior year completed
   d. Undergraduate degree obtained (BS, BA)
   e. Master’s degree obtained
   d. Doctoral degree obtained
   g. Professional degree obtained (MD, JD)
NARCISSISTIC PERSONALITY INVENTORY

This inventory consists of a number of pairs of statements with which you may or may not identify. Consider this example:

A. I like having authority over people
B. I don't mind following orders

Which of these two statements is closer to your own feelings about yourself? If you identify more with "liking to have authority over people" than with "not minding following orders," then you would choose option A.

You may identify with both A and B. In this case you should choose the statement which seems closer to yourself. Or, if you do not identify with either statement, select the one which is least objectionable or remote. In other words, read each pair of statements and then choose the one that is closer to your own feelings. Indicate your answer by writing the letter (A or B) in the space provided to the right of each item. Please do not skip any items.

1. A. I have a natural talent for influencing people.
   B. I am not good at influencing people.
   1. ___

2. A. Modesty doesn't become me.
   B. I am essentially a modest person.
   2. ___

3. A. I would do almost anything on a dare.
   B. I tend to be a fairly cautious person.
   3. ___

4. A. When people compliment me I sometimes get embarrassed.
   B. I know that I am good because everybody keeps telling me so.
   4. ___

5. A. The thought of ruling the world frightens the hell out of me.
   B. If I ruled the world it would be a better place.
   5. ___

6. A. I can usually talk my way out of anything.
   B. I try to accept the consequences of my behavior.
   6. ___

7. A. I prefer to blend in with the crowd.
   B. I like to be the center of attention.
   7. ___

8. A. I will be a success.
   B. I am not too concerned about success.
   8. ___

9. A. I am no better or worse than most people.
   B. I think I am a special person.
   9. ___
10. A. I am not sure if I would make a good leader.
B. I see myself as a good leader.  

11. A. I am assertive.
B. I wish I were more assertive.  

12. A. I like to have authority over other people.
B. I don't mind following orders.  

13. A. I find it easy to manipulate people.
B. I don't like it when I find myself manipulating people.  

14. A. I insist upon getting the respect that is due me.
B. I usually get the respect that I deserve.  

15. A. I don't particularly like to show off my body.
B. I like to show off my body.  

16. A. I can read people like a book.
B. People are sometimes hard to understand.  

17. A. If I feel competent I am willing to take responsibility for making decisions.
B. I like to take responsibility for making decisions.  

18. A. I just want to be reasonably happy.
B. I want to amount to something in the eyes of the world.  

19. A. My body is nothing special.
B. I like to look at my body.  

20. A. I try not to be a show off.
B. I will usually show off if I get the chance.  

21. A. I always know what I am doing.
B. Sometimes I am not sure of what I am doing.  

22. A. I sometimes depend on people to get things done.
B. I rarely depend on anyone else to get things done.  

23. A. Sometimes I tell good stories.
B. Everybody likes to hear my stories.  

24. A. I expect a great deal from other people.
B. I like to do things for other people.  

25. A. I will never be satisfied until I get all that I deserve.
25. B. I take my satisfactions as they come.

26. A. Compliments embarrass me.
   B. I like to be complimented.

27. A. I have a strong will to power.
   B. Power for its own sake doesn't interest me.

28. A. I don't care about new fads and fashions.
   B. I like to start new fads and fashions.

29. A. I like to look at myself in the mirror.
   B. I am not particularly interested in looking at myself in the mirror.

30. A. I really like to be the center of attention.
   B. It makes me uncomfortable to be the center of attention.

31. A. I can live my life in any way I want to.
   B. People can't always live their lives in terms of what they want.

32. A. Being an authority doesn't mean that much to me.
   B. People always seem to recognize my authority.

33. A. I would prefer to be a leader.
   B. It makes little difference to me whether I am a leader or not.

34. A. I am going to be a great person.
   B. I hope I am going to be successful.

35. A. People sometimes believe what I tell them.
   B. I can make anybody believe anything I want them to.

36. A. I am a born leader.
   B. Leadership is a quality that takes a long time to develop.

37. A. I wish somebody would someday write my biography.
   B. I don't like people to pry into my life for any reason.

38. A. I get upset when people don't notice how I look when I go out in public.
   B. I don't mind blending into the crowd when I go out in public.

39. A. I am more capable than other people.
   B. There is a lot that I can learn from other people.

40. A. I am much like everybody else.
   B. I am an extraordinary person.
APPENDIX E

PATHOLOGICAL NARCISSISM INVENTORY

Please indicate to what degree you disagree or agree with the following statements.

1. I often fantasize about being admired and respected.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

2. My self-esteem fluctuates a lot.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

3. I sometimes feel ashamed about my expectations of others when they disappoint me.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

4. I can usually talk my way out of anything.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

5. It’s hard to feel good about myself when I’m alone.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

6. I can make myself feel good by caring for others.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

7. I hate asking for help.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

8. When people don’t notice me, I start to feel bad about myself.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

9. I often hide my needs for fear that others will see me as needy and dependent.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

10. I can make anyone believe anything I want them to.
    Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

11. I get mad when people don’t notice all that I do for them.
    Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

12. I get annoyed by people who are not interested in what I say or do.
    Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

13. I wouldn’t disclose all my intimate thoughts and feelings to someone I didn’t admire.
    Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

14. I often fantasize about having a huge impact on the world around me.
15. I find it easy to manipulate people.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

16. When others don’t notice me, I start to feel worthless.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

17. Sometimes I avoid people because I’m concerned that they’ll disappoint me.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

18. I typically get very angry when I’m unable to get what I want from others.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

19. I sometimes need important others in my life to reassure me of my self-worth.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

20. When I do things for other people, I expect them to do things for me.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

21. When others don’t meet my expectations, I often feel ashamed about what I wanted.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

22. I feel important when others rely on me.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

23. I can read people like a book.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

24. When others disappoint me, I often get angry at myself.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

25. Sacrificing for others makes me the better person.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

26. I often fantasize about accomplishing things that are probably beyond my means.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

27. Sometimes I avoid people because I’m afraid they won’t do what I want them to.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

28. It’s hard to show others the weaknesses I feel inside.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

29. I get angry when criticized.
Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
30. It’s hard to feel good about myself unless I know other people admire me.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

31. I often fantasize about being rewarded for my efforts.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

32. I am preoccupied with thoughts and concerns that most people are not interested in me.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

33. I like to have friends who rely on me because it makes me feel important.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

34. Sometimes I avoid people because I’m concerned they won’t acknowledge what I do for them.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

35. Everybody likes to hear my stories.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

36. It’s hard for me to feel good about myself unless I know other people like me.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

37. It irritates me when people don’t notice how good a person I am.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

38. I will never be satisfied until I get all that I deserve.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

39. I try to show what a good person I am through my sacrifices.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

40. I am disappointed when people don’t notice me.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

41. I often find myself envying others’ accomplishments.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

42. I often fantasize about performing heroic deeds.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

43. I help others in order to prove I’m a good person.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree
44. It’s important to show people I can do it on my own, even if I have some doubts inside.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

45. I often fantasize about being recognized for my accomplishments.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

46. I can’t stand relying on other people because it makes me feel weak.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

47. When others don’t respond to me the way that I would like them to, it is hard for me to still feel ok with myself.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

48. I need others to acknowledge me.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

49. I want to amount to something in the eyes of the world.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

50. When others get a glimpse of my needs, I feel anxious and ashamed.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

51. Sometimes it’s easier to be alone than to face not getting everything I want from other people.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

52. I can get pretty angry when others disagree with me.
   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree
APPENDIX F

ROSENBERG SELF-ESTEEM SCALE

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

1. On the whole, I am satisfied with myself.
   SA   A   D   SD

2. At times, I think I am no good at all.
   SA   A   D   SD

3. I feel that I have a number of good qualities.
   SA   A   D   SD

4. I am able to do things as well as most other people.
   SA   A   D   SD

5. I feel I do not have much to be proud of.
   SA   A   D   SD

6. I certainly feel useless at times.
   SA   A   D   SD

7. I feel that I’m a person of worth, at least on an equal plane with others.
   SA   A   D   SD

8. I wish I could have more respect for myself.
   SA   A   D   SD

9. All in all, I am inclined to feel that I am a failure.
   SA   A   D   SD

10. I take a positive attitude toward myself.
    SA   A   D   SD
APPENDIX G

THE CONDITIONAL REASONING TEST FOR AGGRESSION

Instructions: For each question, circle the one answer that is the most logical based on the information presented. Sometimes this will require you to cut through answers that look logical in order to get to the most genuine or “real” answer.

1. Many poor hospitals in this country are experiencing a shortage of nurses. Yet enrollment in nursing schools is at an all-time high.
Which of the following is the most logical conclusion based on the above?
   a. The prospect of a low-paying job attracts many people to nursing school.
   b. Enrollment in dental schools is at an all-time high.
   c. Most people who start nursing school never graduate.
   d. Nurses tend to seek out jobs that pay well.

2. Customers like to shop at stores where they can get a good deal. So stores typically put a few items “on sale” and sell them at cost or at a loss.
Which of the following is the most logical conclusion based on the above?
   a. Stores would make more money if they never put anything on sale.
   b. Customers often buy other items in addition to sale items.
   c. Customers generally prefer to pay full price for their purchases.
   d. Most stores accept charge cards and personal checks.

3. Joe is usually on time for work and for meetings with his boss and clients. He is also on time for appointments with his doctor, dentist, and priest. However, Joe is always five or more minutes late for meetings with Bill.
Which of the following is the most logical explanation for Joe being late for meetings with Bill?
   a. Bill gets up later than Joe.
   b. Joe is usually on time for people he respects, so he must not respect Bill.
   c. Joe and Bill are both self-employed.
   d. Joe and Bill are friends, so they don't care about being on time for each other.

4. People who are pushy about getting what they want are often disliked by others. However, aggressively going after customers is often needed to be successful in sales. People who are successful in sales are usually respected by others.
Which of the following is the most logical conclusion based on the above?
   a. Doctors are not respected by most people.
   b. Sales is the only job that requires pushiness.
   c. Pushy salespeople may be successful but will often be disliked.
   d. Salespeople who are not pushy will not be successful or respected.

5. History shows that many generals who were good leaders in war were not as good during peacetime. Also, many generals who were promoted during peacetime were not good at leading soldiers in war.
Which of the following is the most logical conclusion based on the above?
   a. Weak people with friends in high places are often chosen to be generals during peacetime.
   b. It is hard to know how officers will do in battle until they are actually in a war.
   c. Generals and privates usually sit together at meals.
   d. Modern wars are more often fought at sea than in the air.

6. A common side effect of allergy medication is drowsiness. Joan has never taken allergy medication. Occasionally, however, Joan gets drowsy.
Which of the following is the most logical conclusion based on the above?
   a. Joan has a physical examination once a year.
   b. There are other causes of drowsiness besides allergy medication.
   c. Allergy medication gives some people high blood pressure.
   d. Joan is allergic to dust, pollen, and ragweed.
7. The old saying, "an eye for an eye," means that if someone hurts you, then you should hurt that person back. If you are hit, then you should hit back. If someone burns your house, then you should burn that person's house. Which of the following is the biggest problem with the "eye for an eye" plan?
   a. It tells people to "turn the other cheek."
   b. It offers no way to settle a conflict in a friendly manner.
   c. It can only be used at certain times of the year.
   d. People have to wait until they are attacked before they can strike.

8. Most bosses do not like to criticize employees. It makes both the boss and the employee uneasy. Which of the following is the most logical explanation for the above?
   a. Bosses and employees like a friendly place to work.
   b. Annual performance reviews happen only once a year.
   c. Many companies now have no-smoking policies.
   d. Bosses are afraid to criticize problem workers.

9. New technology has changed the American workplace. A job that is here today could be gone tomorrow. People can no longer expect to work on the same job for very long. On the other hand, many new jobs are being created. Which of the following is the most logical conclusion based on the above?
   a. People will spend more time in school learning new skills.
   b. More people will buy their homes rather than rent.
   c. Trying to be steady and dependable will not be as important in future jobs.
   d. The American workplace never changes.

10. Girl Scouts and Boy Scouts teach young people a sense of discipline. They also teach respect for authority, neatness, dependability, and loyalty. Which of the following is the most logical prediction of what Scouts will be like when they grow up?
    a. They will be easily controlled by leaders.
    b. They will be reluctant to attend foreign films.
    c. They will be self-conscious about their height.
    d. They will be ready to take on responsibility.

11. People in a rich neighborhood in New York were pushed around for years by a homeless man. This man slept in alleys, stayed drunk or high on drugs, and cursed and threatened to hurt many of the residents. The police were called many times. But the homeless man always got a lawyer and returned to the neighborhood and caused trouble. Which of the following is the most logical conclusion regarding the people who lived in this neighborhood?
    a. They were used to dealing with the cold weather.
    b. They were afraid of the man, and would not fight back.
    c. They worked in New Jersey.
    d. They did all that they could do within the law.

12. Businesses say they want to give customers a good product at a low price. To keep costs down, companies have cut back to the smallest workforce possible. And the pay for most workers does not buy as much as it used to. Which of the following is the most logical conclusion based on the above?
    a. Getting customers depends on keeping costs low.
    b. Many companies pay employees monthly.
    c. As long as their prices are low, companies don't care about the quality of life of their employees.
    d. Companies usually raise prices to attract customers.

13. 100 years ago, male college students often fought duels with swords. One or both fighters were cut. Some people argued that duels should be outlawed. Other people stood up for dueling. They said that duels were a good way to pick out leaders who were brave and strong. In those days, leaders in the military and business often had dueling scars. Ultimately, however, duels were outlawed. Which of the following is the most logical conclusion based on the above?
    a. Guns made duels less dangerous.
    b. Colleges wanted to be known as places of learning rather than fighting.
    c. Without duels, it became harder to identify good leaders.
14. Doreen has noticed that a new girl at her high school has been looking at her from across the cafeteria. The new girl is like Doreen in many ways. She is pretty, wears nice clothes, cuts her hair short, and seems to get along with both girls and boys. Doreen notices that the new girl is checking out who Doreen's friends are and how Doreen acts around boys. Which of the following is the most logical conclusion based on the above?
   a. The new girl is planning on joining the soccer team.
   b. The new girl is checking Doreen out as a likely rival.
   c. Doreen has algebra during second period.
   d. The new girl may become friends with Doreen.

15. More people are getting permits to carry guns. Most of these people say that they want to carry a gun to protect themselves. Which of the following is the most logical conclusion based on the above?
   a. These people would not mind shooting someone if threatened or attacked.
   b. These people would gladly buy a new car.
   c. These people think they are less likely to be hurt if they have a gun.
   d. Bullets for guns are expensive and difficult to get.

16. American cars have gotten better in the last 15 years. American car makers started to build better cars when they began to lose business to the Japanese. Many American buyers thought that foreign cars were better made. Which of the following is the most logical conclusion based on the above?
   a. America was the world's largest producer of airplanes 15 years ago.
   b. Swedish car makers lost business in America 15 years ago.
   c. The Japanese knew more than Americans about building good cars 15 years ago.
   d. American car makers built cars to wear out 15 years ago, so they could make a lot of money selling parts.

17. Store employees are told to watch out for people who look like shoplifters. If a customer looks like a shoplifter, then employees are supposed to watch the customer closely. Which of the following is the biggest problem with this practice?
   a. Most retail stores don't open until 10:00 in the morning.
   b. Many customers who look like shoplifters are honest and do not steal.
   c. Parking is getting harder to find in shopping malls.
   d. Abuse by store employees who use it as an excuse to bother people they don't like.

18. Many companies use bonuses to reward their employees. For example, salespeople are supposed to make a certain number of sales. If they sell more than they are supposed to, then they receive a bonus. Bonuses include extra pay and time off from work. Which of the following is the most logical explanation for why companies use bonuses?
   a. Bonuses give new employees a way to learn more about the business.
   b. Bonuses give customers a reward for being loyal.
   c. Bonuses give managers a way to have more control over their employees.
   d. Bonuses give hard-working employees a way to earn extra money or time off.

19. People who work for restaurants often have their purses or bags searched. Managers search employees as they leave work. The reason given for the searches is that they reduce theft of food and equipment. Which of the following is the biggest problem with this reasoning?
   a. Most restaurant employees are honest and feel embarrassed by the searches.
   b. Many restaurant employees receive tips from customers.
   c. Employees who steal are too smart to be caught by this type of search.
   d. More restaurants are opening up for lunch.

20. Gangs have formed in many large cities. Gangs often fight over territory, selling drugs, and insults. Gang members are often killed in these fights. Few murders of gang members are solved. Which of the following is the most logical conclusion based on the above?
   a. The police don't really care about the deaths of a few gang members.
b. Gangs never use weapons in fights.
c. Most police are trained in hand-to-hand combat.
d. Too many people are in gang fights to know who committed the murders.

21. Wild animals often fight to see who will breed. This ensures that only the strongest animals reproduce. When strong animals reproduce, their young tend to grow into strong and powerful animals. Unlike animals, people who are not strong often reproduce.
Which of the following is the most logical conclusion based on the above?
   a. People who are not strong can be successful.
   b. Animals breed most often in the Fall.
   c. The study of biology is getting less popular.
   d. Humans are becoming physically weaker.

22. Many hold-ups take place on city streets. Hold-up victims are usually not hurt if they do everything a robber wants. Which of the following is the most logical conclusion regarding hold-up victims who do get hurt?
   a. They resisted, refused to turn over money, or started a fight.
   b. They met a robber with a taste for violence.
   c. They were held up during the day rather than at night.
   d. They were able to outrun their attacker.

23. Half of all marriages end in divorce. One reason for the large number of divorces is that getting a divorce is quick and easy. If a couple can agree on how to split their property fairly, then they can get a divorce simply by filling out forms and taking them to court. They do not need lawyers.
Which of the following is the most logical conclusion based on the above?
   a. People are older when they get married.
   b. If one's husband or wife hires a lawyer, then he or she is not planning to play fair.
   c. Couples might get back together if getting a divorce took longer.
   d. More men than women get divorced.

24. Some companies treat employees badly. For example, some companies lay people off and then expect one person to do the work of two people. Managers get big raises in some companies, but employees get only small increases. To get even, some employees have damaged company equipment, slacked off on the job, or faked being sick. However, most employees do not act in these ways.
Which of the following is the most logical conclusion based on the above?
   a. Most employees are afraid of being caught.
   b. Most employees never get sick.
   c. Most employees drive to work rather than walk.
   d. Most employees value good behavior at work.

25. Germany took over many small countries before World War II. Other countries thought that they could stop Germany. They had Germany sign agreements promising not to attack again. Germany broke these promises many times.
Which of the following is the most logical conclusion based on the above?
   a. Only weak countries follow agreements.
   b. Signing agreements works best when all countries can be trusted.
   c. England should not have invaded France.
   d. Small countries are always more powerful than large countries.
APPENDIX H

THE GENDER-FREE INVENTORY OF DESIRABLE RESPONDING

Instructions: Below are a number of statements that may or may not describe you. Please indicate HOW MUCH EACH STATEMENT DESCRIBES YOU by using the following scale:

1 – Does not describe me at all
2 – Describes me a little
3 – Somewhat describes me
4 – Describes me well
5 – Describes me greatly

1) I am always courteous, even to people who are disagreeable. 1 2 3 4 5
2) At times I have really insisted on having things my own way. 1 2 3 4 5
3) There have been times when I was quite jealous of the good fortune of others. 1 2 3 4 5
4) I like to gossip about other people’s business. 1 2 3 4 5
5) I say only good things about my friends behind their backs. 1 2 3 4 5
6) I sometimes put things off until tomorrow what I should do today. 1 2 3 4 5
7) I have some pretty awful habits. 1 2 3 4 5
8) I always tell the truth. 1 2 3 4 5
9) I have never cheated on a test or assignment in any way. 1 2 3 4 5
10) I am always free of guilt. 1 2 3 4 5
APPENDIX I

THE BUSS-PERRY AGGRESSION QUESTIONNAIRE

Instructions: Below are a number of statements that may or may not describe you. Please indicate HOW MUCH EACH STATEMENT DESCRIBES YOU by using the following scale:

1 – Extremely uncharacteristic of me
2 – Somewhat uncharacteristic of me
3 – Neither characteristic nor uncharacteristic of me
4 – Somewhat characteristic of me
5 – Extremely characteristic of me

1) Once in a while I can’t control the urge to strike another person.                1 2 3 4 5
2) Given enough provocation, I may hit another person.                         1 2 3 4 5
3) If somebody hits me, I hit back.                                             1 2 3 4 5
4) I get into fights a little more than the average person.                    1 2 3 4 5
5) If I have to resort to violence to protect my rights, I will.              1 2 3 4 5
6) There are people who pushed me so far that we came to blows.               1 2 3 4 5
7) I can think of no good reason for ever hitting a person.                    1 2 3 4 5
8) I have threatened people I know.                                            1 2 3 4 5
9) I have become so mad that I have broken things.                             1 2 3 4 5
10) I tell my friends openly when I disagree with them.                        1 2 3 4 5
11) I often find myself disagreeing with people.                               1 2 3 4 5
12) When people annoy me, I may tell them what I think of them.               1 2 3 4 5
13) I can’t help getting into arguments when people disagree with me.         1 2 3 4 5
14) My friends say that I’m somewhat argumentative.                           1 2 3 4 5
15) I flare up quickly but get over it quickly.                                 1 2 3 4 5
16) When frustrated, I let my irritation show.                                 1 2 3 4 5
17) I sometimes feel like a powder keg ready to explode.                      1 2 3 4 5
18) I am an even-tempered person.                                              1 2 3 4 5
19) Some of my friends think I’m a hothead.                                    1 2 3 4 5
20) Sometimes I fly off the handle for no good reason.                        1 2 3 4 5
21) I have trouble controlling my temper.                                      1 2 3 4 5
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>22) I am sometimes eaten up with jealousy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23) At times I feel I have gotten a raw deal out of life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24) Other people always seem to get the breaks.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25) I wonder why sometimes I feel so bitter about things.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26) I know that “friends” talk about me behind my back.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27) I am suspicious of overly friendly strangers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28) I sometimes feel that people are laughing at me behind my back.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29) When people are especially nice, I wonder what they want.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX J

SAMPLE ASSESSMENT OF STUDENT’S KNOWLEDGE

OF LECTURE MATERIAL

1. What is the whole lecture about?
   a. Communication
   b. Talking
   c. Media’s influence on conversation
   d. Signals

2. What is the most basic and innate form of communication?
   a. Letters
   b. Words
   c. Signals
   d. None of the above

3. According to this instructor, communication is intentional.
   a. True
   b. False

4. What two reasons for speaking does the instructor want the class to focus on?
   a. Entertain and eulogize
   b. Commemorate and celebrate
   c. Inform and persuade
   d. Perform and entertain

5. Signs are innate and are the same for all people in all cultures.
   a. True
   b. False

6. What is an example of a sign?
   a. Baby crying for food
   b. Handshake for greeting
   c. Child smiling at the sight of mother
   d. Person shivering due to cold environment

7. Which of the following contains our language?
   a. Signs
   b. Signals
   c. Symbols
   d. None of the above

8. Some descriptors of language include __________.
   a. Unchanging and inflexible.
b. Dynamic and rule-free.
c. Stable, inflexible, and rule-free.
d. Dynamic, adaptive, and rule-bound.

9. What term means the intentional semiotic process of generating and attributing shared meaning?
   a. Speech communication
   b. Media
   c. Language
   d. Signals

10. Based on the lecturer’s presentation of information, how many questions do you think you answered correctly?
    a. 8 or more
    b. 6-7
    c. 4-5
    d. 3 or fewer
APPENDIX K

LECTURE EVALUATION

The following questions ask that you evaluate the lecturer based on categories of teaching performance. Please rate the performance of the lecturer for each of the following items:

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturer’s knowledge of the information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecturer’s ability to communicate or explain subject matter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree to which the subject matter was made relevant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairness of the test material</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concern and respect for students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration of class/organization of material</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall rating of this lecturer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indicate the level to which you agree with each statement:

I would take a class from this lecturer:

Strongly Agree    Somewhat Agree    Somewhat Disagree    Strongly Disagree

I would recommend this lecturer to other students:

Strongly Agree    Somewhat Agree    Somewhat Disagree    Strongly Disagree

I would benefit from this lecturer’s teaching style:

Strongly Agree    Somewhat Agree    Somewhat Disagree    Strongly Disagree
I would like for the following groups to receive my feedback of the instructor:

Researchers       Instructor       Instructor’s Supervisor       Instructor’s Future Students
Indicate the degree to which you agree or disagree with the following statements

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I found the material enjoyable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would like to be a student in the lecturer’s class.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wanted to evaluate the lecturer fairly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I could identify with students in the video.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I found the lecturer likeable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I found the lecturer’s response to students helpful.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What do you believe is the purpose of this study?
APPENDIX M

STATE SELF-ESTEEM SCALE

This is a measure designed to measure what you are thinking at this moment. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Be sure to answer all of the items, even if you are not certain of the best answer. Again, answer these questions as they are true for you RIGHT NOW.

1. I feel confident about my abilities.
   Not at all    A little bit    Somewhat    Very much    Extremely

2. I am worried about whether I am regarded as a success or failure.
   Not at all    A little bit    Somewhat    Very much    Extremely

3. I feel satisfied with the way my body looks right now.
   Not at all    A little bit    Somewhat    Very much    Extremely

4. I feel frustrated or rattled about my performance.
   Not at all    A little bit    Somewhat    Very much    Extremely

5. I feel that I am having trouble understanding things that I read.
   Not at all    A little bit    Somewhat    Very much    Extremely

6. I feel that others respect and admire me.
   Not at all    A little bit    Somewhat    Very much    Extremely

7. I am dissatisfied with my weight.
   Not at all    A little bit    Somewhat    Very much    Extremely

8. I feel self-conscious.
   Not at all    A little bit    Somewhat    Very much    Extremely

9. I feel as smart as others.
   Not at all    A little bit    Somewhat    Very much    Extremely

10. I feel displeased with myself.
    Not at all    A little bit    Somewhat    Very much    Extremely

11. I feel good about myself.
    Not at all    A little bit    Somewhat    Very much    Extremely

12. I am pleased with my appearance right now.
    Not at all    A little bit    Somewhat    Very much    Extremely

13. I am worried about what other people think of me.
    Not at all    A little bit    Somewhat    Very much    Extremely
   Not at all    A little bit    Somewhat    Very much    Extremely

15. I feel inferior to others at this moment.
   Not at all    A little bit    Somewhat    Very much    Extremely

16. I feel unattractive.
   Not at all    A little bit    Somewhat    Very much    Extremely

17. I feel concerned about the impression I am making.
   Not at all    A little bit    Somewhat    Very much    Extremely

18. I feel that I have less scholastic ability right now than others.
   Not at all    A little bit    Somewhat    Very much    Extremely

19. I feel like I'm not doing well.
   Not at all    A little bit    Somewhat    Very much    Extremely

20. I am worried about looking foolish.
   Not at all    A little bit    Somewhat    Very much    Extremely
APPENDIX N

POSITIVE AND NEGATIVE AFFECT SCHEDULE – EXPANDED FORM

This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way during the past few weeks. Use the following scale to record your answers:

<table>
<thead>
<tr>
<th>Item</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>cheerful</td>
<td>very slightly</td>
</tr>
<tr>
<td>disgusted</td>
<td>a little</td>
</tr>
<tr>
<td>attentive</td>
<td>moderately</td>
</tr>
<tr>
<td>bashful</td>
<td>quite a bit</td>
</tr>
<tr>
<td>sluggish</td>
<td>extremely</td>
</tr>
<tr>
<td>daring</td>
<td>or not at all</td>
</tr>
<tr>
<td>surprised</td>
<td>2</td>
</tr>
<tr>
<td>strong</td>
<td>3</td>
</tr>
<tr>
<td>scornful</td>
<td>4</td>
</tr>
<tr>
<td>relaxed</td>
<td>5</td>
</tr>
<tr>
<td>irritable</td>
<td></td>
</tr>
<tr>
<td>delighted</td>
<td></td>
</tr>
<tr>
<td>inspired</td>
<td></td>
</tr>
<tr>
<td>fearless</td>
<td></td>
</tr>
<tr>
<td>disgusted with self</td>
<td>1</td>
</tr>
</tbody>
</table>

______ sad
______ calm
______ afraid
______ tired
______ amazed
______ shaky
______ happy
______ timid
______ alone
______ alert
______ upset
______ angry
______ upset
______ shy
______ blue
______ with self

______ active
______ guilt
______ joyful
______ nervous
______ lonely
______ sleepy
______ excited
______ host  
______ proud
______ jittery
______ lively
______ ashamed
______ at ease
______ scared
______ drowsy

______ angry at self
______ enthusiastic
______ downhearted
______ sheepish
______ distressed
______ blameworthy
______ determined
______ frightened
______ astonished
______ interested
______ loathing
______ confident
______ energetic
______ concentrating
______ dissatisfied
______ with self
REFERENCES


Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. (2003). The concept of bullying at work. In S. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Eds.), *Bullying and*
emotional abuse in the workplace: International perspective in research and practice (pp. 3-30). London: Taylor & Francis.


Twenge, J. M., Konrath, S., Foster, J. D., Campbell, W. K., & Bushman, B. J. (2008). Egos inflating over time: A cross-temporal meta-analysis of the Narcissistic Personality Inventory. *Journal of Personality, 76*, 875-901.


