

Running Head: NARCISSISM, SELF-ESTEEM, SELF-WORTH AND AGGRESSION

NARCISSISM, SELF-ESTEEM, AND SELF-WORTH AS PREDICTORS OF  
AGGRESSION

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## Dedication

This thesis is dedicated to my parents, Pedro M. García and Grisel Ramírez,  
for their unconditional support,  
and their trust on following my own path.

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Thanks to all who have helped me in one way or another to complete my Master of Science degree in Research Psychology. Thanks to my friends and family, for their words of encouragement and understanding. Thanks to Dr. O'Leary, for his support, and help throughout this process. Thanks to Dr. Cunningham, for his help and statistical guidance. And special thanks to Dr. Watson, for accepting to be my advisor, for his patience, understanding, and encouragement, especially this last year, and pushing me towards becoming a better researcher.

## Abstract

Previous research has shown a relationship between narcissism and aggression, and between narcissism and self-esteem. Indeed, aspects of narcissism predict both adjusted and maladjusted forms of functioning. Therefore, narcissism appears to be both adaptive and maladaptive. In the present study, maladjusted narcissism was directly correlated with aggression, while self-esteem was inversely correlated with aggression. Another objective of this research was to relate narcissism and aggression with contingencies of self-worth. Contingencies of self-worth consisted of two relational contingencies: internal and external. Most of the external contingencies of self-worth were related to aggression, lower self-esteem, and maladaptive narcissism. In contrast internal contingencies of self-worth were related to less self-reported aggression, greater self-esteem, and adaptive narcissism. Also, the contingencies of self-worth involving appearance and virtue partially mediated the relationship between narcissism and aggression.

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## Narcissism, Self-Esteem, and Self-Worth as Predictors of Aggression

Why do some people act aggressively while others do not? Previous research has tried to answer this question. It has been proposed that levels of self-esteem, either low or high, and the stability of self-esteem are likely to determine aggressive behavior (Kernis, Grannemann, & Barclay, 1989; Kernis, Cornell, Sun, Berry, & Harlow, 1993). Other researchers believe the variable that influences aggressive behavior is threatened egotism (Bushman & Baumeister, 1998; Baumeister, Bushman, & Campbell, 2000; Baumeister, Smart & Boden, 1996). In short, there are different assumptions about the relationships of self-esteem and narcissism with aggressive behavior, but the specific association has not yet been determined. The purpose of the present research was not to give the ultimate answer to this problem, but to further help explain how self-functioning might be related to aggressive behavior.

Further explanation of aggressive behavior based upon self-esteem and narcissism may require consideration of contingencies of self-worth (Crocker & Wolfe, 2001). The importance of contingencies of self-worth in light of this research may be their close relation to self-esteem; so, these contingencies could help clarify aggressive behavior. Besides analyzing the direct relationship of the contingencies of self-worth to aggression, this project also considered if contingencies of self-worth might serve as mediators between narcissism and aggression. Also considered was the possibility that self-esteem functions as a moderator between the relationship between narcissism and aggression. In sum, the main purpose of the present study was to analyze the relationship relationships between narcissism, self-esteem, and contingencies of self-worth, and of these variables with aggression.



*Self-esteem, Threatened Egotism and Aggression*

One of the explanations researchers have analyzed in order to explain why people are likely to act aggressively, while others do not, are their levels of self-esteem: whether they have either high self-esteem or low self-esteem. Often the views of self-esteem and aggression are contradictory. Some research has demonstrated that a relationship does exist between low self-esteem and aggressive behavior (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Trzesniewski, Donnellan, Moffitt, Robins, Poulton, & Caspi, 2006). These authors propose that negative behavior, such as delinquency and criminal behavior are related to low self-esteem. In contrast, research by Kernis et al. (1989, 1993) proposed high and unstable self-esteem to be a better predictor of aggressive behavior. Thus, clearly, there has not been a consensus on the influence self-esteem has on aggressive behavior.

Before explaining the relationship between self-esteem and aggression, it is important to clarify the definition of aggression in the present study. Anderson and Bushman (2002) define human aggression as “behavior directed toward another individual that is carried out with the... intent to cause harm” (p. 28). These authors also define hostile aggression “as being impulsive, thoughtless (i.e., unplanned), driven by anger, having the ultimate motive of harming the target, and occurring as a reaction to some perceived provocation” (p. 29). In the present study, aggression is defined in terms of this Anderson and Bushman description of hostile aggression.

As previously mentioned, Donnellan et al. (2005), as well as Trzesniewski et al. (2006), have proposed that low self-esteem is one possible explanation for aggressive behavior. In the studies by Donnellan et al. (2005), results revealed an inverse correlation

between self-esteem and aggression, based on the Buss-Perry Aggression Questionnaire. They also found that self-esteem and narcissism related to aggression independently from one another. In sum, Donnellan et al. found that low self-esteem was related to aggression. Similar to Donnellan et al., Trzesniewski et al. (2006) found that low self-esteem can indicate negative outcomes, such as criminal behavior. These authors also found other negative outcomes of low self-esteem, such as poorer mental and physical health. These studies suggest that one cannot ignore the relationship of low self-esteem to aggression even as other possible explanations for aggression are considered.

In contrast to the hypothesis that low self-esteem is related to aggression, research by Kernis et al. (1989, 1993) proposes that high self-esteem is positively related to aggressive behavior. Kernis et al. (1989) suggested that the combination of stability of self-esteem and level of self-esteem serve as predictors for aggression. The authors referred to the stability of self-esteem as “short-term fluctuations in one’s global self-evaluation” (p. 1013). The results showed that individuals with an unstable high self-esteem were more likely to experience anger, whereas individuals with stable high self-esteem were less likely to experience anger. Individuals with low self-esteem, either stable or unstable, fall between those with unstable high self-esteem and stable high self-esteem.

Similarly, Kernis et al. (1993) suggested that individuals with unstable high self-esteem were more likely to act defensively when faced with negative feedback. The opposite happened for individuals with unstable low self-esteem. They were more likely to perceive negative feedback as correct, and therefore participants did not act

defensively toward criticism. In sum, these researches suggested that higher and unstable self-esteem, rather than lower self-esteem, is more likely to predict aggressive behavior.

In addition to different views of self-esteem and its relationship with aggression, it is also relevant to mention research where other variables are taken into consideration as predictors of aggression. Past researches propose threatened egotism as a determinant for aggressive behavior. Baumeister, Smart, and Boden (1996) review literature support the hypothesis that threatened egotism might be a good and valid predictor of aggressive behavior. The authors base this hypothesis of threatened egotism on the possibility that an individual's self-esteem may not be realistic. For those whose self-esteem is not realistic, when faced with reality, in this case an "external evaluation," might feel threatened and consequently might act aggressively.

Baumeister et al. (1996) defined self-esteem as "a favorable global evaluation of oneself" (p. 5). They suggest that people are more likely to act aggressively when high self-esteem is combined with situational factors that threaten the person's egotism. The authors refer to egotism as "favorable appraisals of self and... the motivated preference for such favorable appraisals, regardless of whether they are valid or inflated" (Baumeister et al., 1996, p. 6). An ego threat can occur when people are being disrespected, insulted, or their pride hurt by someone else. When discrepancies between positive self-appraisals and realistic appraisals by others are presented, the individual may act aggressively because he wants to confirm the positive views he has of himself.

Baumeister et al. (1996) proposed that the combination of high self-esteem and ego threat is what may cause an aggressive response. If the positive views people have of themselves are inconsistent with the negative view others have about them, and they do

not accept those negative views, then people are more likely to be aggressive. As a way of rejecting negative evaluations and maintaining the favorable views they have of themselves, individuals act aggressively toward the person who offended them as their defense. In sum, Baumeister et al. (1996) believe that for the individual to act aggressively, someone has to threaten their ego. They are likely to act aggressively because they have a high self-esteem that must be maintained, and others are not doing so.

Similar to Baumeister et al. (1996), Bushman and Baumeister (1998) proposed that threatened egotism is what leads to aggressive behavior. Bushman and Baumeister also considered whether self-esteem and narcissism were related to aggression. To threaten the ego of participants, they either received criticism (ego threat) or praise (ego boost) for the essays they wrote as part of the study. The results of the study implied that individuals who scored higher on traits descriptive of narcissism were likely to act aggressively but strictly toward those who threatened their ego; the more threatened they felt, the more likely they would act aggressively. Meanwhile, if participants received praise and did not feel threatened, they did not act aggressively. Bushman and Baumeister did not find a relationship that linked self-esteem with aggression, but did find a relationship between threatened egotism and aggression.

People tended to be more aggressive if their egos were threatened and if they had narcissistic characteristics such as grandiose views of themselves (Bushman & Baumeister, 1998). Individuals who score higher on narcissistic traits are looking for others to think highly of themselves. The frustration when this does not occur may drive them to act aggressively. Thus, it is not only the fact that people think highly of

themselves that leads them to act aggressively; instead it is the desire that others confirm their sense of grandiosity that leads them to act aggressively when these views are challenged by others.

In sum, the results of Bushman and Baumeister (1998) suggested that individuals who are high in narcissistic traits are more likely to behave aggressively when their ego is being threatened by others. The authors also suggested that high self-esteem and low self-esteem do not necessarily determine aggressive behavior. According to Bushman and Baumeister, narcissism and threatened egotism are better predictors of aggression.

Baumeister, Bushman, and Campbell (2000) support the idea presented by Bushman and Baumeister (1998) that individuals who have narcissistic traits or who wish to think positively about themselves are more likely to act aggressively when their ego is being threatened. Baumeister et al. proposed that “narcissism is... not directly a cause of aggression and should... be understood as a risk factor that can contribute to increasing a violent, aggressive response to provocation” (p. 27). They proposed that the relationship between aggression and high self-esteem is too “simple,” and that people with high self-esteem can either be too aggressive or too non-aggressive. Individuals with high self-esteem can be in the two extremes; therefore, high self-esteem by itself is not a clear explanation of aggression. For this reason, Baumeister et al. insist on people who *want* to think highly of themselves, or in other words people who have narcissistic traits, as individuals who are more likely to act aggressively.

The view of people who think highly of themselves versus those who want to think highly of themselves proposed by Baumeister et al. (2000) parallels the views of Kernis et al. (1989, 1993). The latter researchers proposed that when self-esteem is

unstable, individuals are more likely to behave aggressively. If people want to think positively about themselves, their self-esteem is not stable; therefore, they are more likely to act aggressively than those people who think highly about themselves, and whose self-esteem is stable and higher.

### *Narcissism*

Because narcissism is such an important part of this study, the following section will focus on defining narcissism from different perspectives. The focus starts with Freud, followed by the definition of narcissism based on the Diagnostic Statistic Manual (DSM), proceeds to newer perspectives like the “Psychology of the Self” from Heinz Kohut (1977), and concludes with the continuum hypothesis. This review will help mold the first set of hypotheses for the present research.

In his theory of narcissism, Freud (1914/1986) proposed two types: primary narcissism and secondary narcissism. Primary narcissism is the type of narcissism that refers to the libido that is invested in the ego of an individual prior to differentiating the ego from external objects (Freud, 1914/1986). The libido refers to the energy associated with basic instinctual characteristics to satisfy the needs that contribute to survival (Ryckman, 2004). External objects in this context refer to other people. Freud considered primary narcissism to be natural for everyone - an instinct - as well as the normal type of narcissism in which the goal of the individual is self-preservation. In order for secondary narcissism to develop, individuals should be able to differentiate between themselves and others. Freud referred to secondary narcissism as the reinvestment of the libido into the self after it was invested in others. He considered secondary narcissism to be the

pathological aspect of narcissism. It is unhealthy because the “love” or the libido that should be directed toward others is instead redirected toward the self.

After Freud proposed narcissism to be maladjusted, narcissism continued to be interpreted as pathological, and in 1980 became a part of the third edition of Diagnostic and Statistical Manual of Mental Disorders (DSM III) as the Narcissistic Personality Disorder (NPD). According to the latest edition of the DSM (DSM IV; American Psychiatric Association, 1994), the basic characteristics of the NPD are a continuous “pattern of grandiosity, need for admiration, and lack of empathy” (American Psychiatric Association, 1994, p. 658). The grandiose view that narcissists have of themselves refers to their self-perceived self-importance. Narcissists exaggerate their abilities and accomplishments and often expect admiration from others. These persons not only exaggerate their accomplishments, but they also belittle the abilities of others.

People identified as displaying NPD frequently fantasize about their success, beauty, and power. Narcissists also think they are superior and unique (American Psychiatric Association, 1994). As might be anticipated from these characteristics, narcissistic personalities require a disproportionate amount of admiration and approval. Individuals with NPD have a sense of entitlement. These individuals have unfounded expectations and anticipate that everyone else will treat them in an approving and flattering way. Furthermore, people with narcissistic traits lack sensitivity, are indifferent towards others, and expect to be given exactly what they want; the outcome is exploitation of others. Individuals displaying NPD are very susceptible to poor self-esteem, especially when it comes to being criticized by others (American Psychiatric Association, 1994). When narcissists are criticized, they may react in different ways, they

might not always express their resentment explicitly, but they could react with rage to defend their self-believed grandiosity. Although many NPD individuals could be aggressive, impulsive, and deceitful, these characteristics are not necessarily evident. It is likely that many people show some characteristics of narcissism, but these tendencies are considered a personality disorder when the traits are inflexible, maladaptive, and persistent.

In contrast to Freud's belief that narcissism is pathological, Heinz Kohut (1977) believed that narcissism could be healthy. In his "Psychology of the Self," Kohut argued that children ideally are born into an empathic-responsive environment. In this environment, the child is not capable of differentiating between himself and the parents. In early stages of development, the self of the child is dependent upon the responsiveness of parents. The parents are the ones who provide the base for the development of healthy psychological structures. Specifically, responsiveness of the parents is the source of psychological structures associated with the self that the child will form.

Kohut (1977) suggests that parents are the first "self-objects" of the child. Self-objects are "objects whose ongoing presence and functions [are]... necessary for the maintenance of an ongoing sense of self and healthy self-esteem because they perform functions for the self that the self cannot yet perform for itself" (Sacksteder, 1990, p. 55). They are called "self-objects" because the child naturally presumes a connection between himself (i.e. the self) and others (i.e. the external objects). In other words, they are called self-objects because the child perceives the parental figure or object as at least partly within his or her own self.



According to Kohut (1977), self-objects are imperfect and can frustrate the child in different ways. Children can be optimally frustrated, traumatically frustrated, or not frustrated at all. Optimal frustrations are “nontraumatic delays of the empathic responses of the self-object” (Kohut, 1977, p. 121). Through optimal frustrations, the child is able to build healthy psychological structures that will make him independent from the self-object. Through such frustrations, the child develops an ability to support his or her own self the way that the parental self-objects have done in the past (i.e. by providing esteem for the self of the child).

If, on the other hand, the empathic responses of self-objects are inconsistent, or completely absent, traumatic frustration can occur (Kohut, 1977). Traumatic frustration impedes the full maturation of the self. By being traumatically frustrated, the individual is unable to develop a mature psychological structure that is necessary to become independent of self-objects. In other words, the frustration that the parents provoke in the child is such that the child becomes overwhelmed, and the self cannot mature.

Finally, some children may be too completely gratified and may not receive adequate frustration from self-objects. Children who are fully gratified do not have the need to develop psychological structures that allow them to become independent from self-objects because they have never been sufficiently frustrated. The lack of frustration, similar to the traumatic frustration from self-objects, therefore, impedes the child from developing mature psychological structures necessary for independence. In sum, unhealthy forms of psychological structures can result from either too little or too much frustration or inconsistent empathic responses from self-objects.

The process by which psychological structures are formed out of optimal frustration is referred to as transmuting internalization (Kohut, 1977). When a child is optimally frustrated, he is likely to develop healthy psychological structures that will allow him or her to fulfill his own needs for esteeming the self. In other words, the child internalizes within himself or herself the support previously received from the parents. On the contrary, when the child is traumatically frustrated, or not sufficiently frustrated, he will constantly rely on others to fulfill his or her needs for being esteemed.

When healthy psychological structures are formed, the child becomes independent from self-objects, and he will display a more mature self-esteem because he or she will not have to rely on others (self-objects). If, on the contrary, the child is unable to develop healthy structures, he will be likely to develop NPD (Kohut, 1977). In other words, the lack of empathy and failures from self-objects in relationship to the child results in the development of NPD. With NPD, “the self has not been solidly established, [and]... its cohesion and firmness depend on the presence of a self-object” (Kohut, 1977, p. 137).

Children who were not optimally frustrated, therefore, rely upon the support of others to maintain their own sense of self (Kohut, 1977). For those individuals who depend on others to maintain their self-esteem, if they receive an injury to their self (i.e. narcissistic injury), they will be more likely to respond with shame or narcissistic rage (Kohut, 1972/1978). Narcissistic rage can occur as the result of not having the expected response from self-objects or because the narcissist is not able to live up to personal expectations. Individuals identified as displaying NPD see others as an extension of their self (i.e. self-objects); therefore, they see the person who has offended them as an extension of the self that needs to be fixed. In contrast, a person with a healthier

development of narcissism is less likely to react with shame or rage, and since this person is able to differentiate between himself or herself and the object, this person will be less likely to respond as if the other individual must be fixed.

According to Kohut (1972/1978), when presented with a narcissistic injury, individuals with narcissistic characteristics are likely to respond similar to the fight or flight reaction. If individuals react similar to the flight reaction, they are likely to react with shame. On the other hand, if they react similar to the fight aspect of the response, they will react with narcissistic rage (Kohut, 1972/1978). Kohut characterized narcissistic rage as a “need of revenge, ... righting a wrong, ... undoing a hurt by whatever means, and a... compulsion in the pursuit of all these aims” (p. 637-638). Individuals who face a narcissistic injury cannot separate the offenders from themselves, and because someone does not agree with their high opinions of themselves, it will be difficult for him or her to let go of the insult and not seek revenge (Kohut, 1972/1978).

There is a difference between narcissistic rage and mature aggression. Individuals who act on mature rage are able to differentiate the target from themselves, while those who act on narcissistic rage cannot differentiate the offender from themselves. Narcissistic rage occurs “when self or object fail to live up to the expectations directed at their function” (Kohut, 1972/1978, p.644). According to Kohut (1972/1978), everyone reacts to narcissistic injuries with anger and shame, but for those whose self-esteem is dependent on self-objects, narcissistic rage will be more violent. Individuals who have more immature narcissistic characteristics and experience narcissistic rage are not empathetic toward the ones who offended them. Since they show no empathy toward the offender, it is less likely that they will change their opinion of not offending them back in

revenge. Mature aggression and narcissistic rage can be differentiated in that with narcissistic rage the ego rationalizes its anger, while the ego controls the anger in mature aggression.

In summary, Kohut's (1977) theory suggests an explanation of narcissism and aggression. If self-objects help develop the self throughout optimal frustration, the child will be more likely to have healthy self-esteem. Children who are optimally frustrated are likely to develop structures that allow them to do for themselves what the self-object used to do for them. If, on the contrary, self-objects traumatically frustrate the child or fail to appropriately produce frustration, the child will not build healthy internal psychological structures that are necessary for doing what self-objects previously did for him or her. Children who are not optimally frustrated will continue to depend on self-objects for the maintenance of their self-esteem. When these persons do not receive the approval they expect from others, they are more likely to act aggressively toward others through what Kohut called narcissistic rage.

#### *Self-reported Narcissism and the Continuum of Self-Functioning*

The Narcissistic Personality Inventory (NPI) was developed to measure characteristics of narcissism as a personality trait through self-report (Raskin & Hall, 1979). In the NPI, participants choose between two statements, one that describes a narcissistic trait, and one that does not. For example, "I find it easy to manipulate people" is a narcissistic trait, whereas "I don't like it when I find myself manipulating people" is a non-narcissistic trait. To document the validity of the NPI, Raskin and Hall (1981) found significant correlations of narcissism with extraversion and psychoticism. Some studies demonstrated the validity of the NPI by finding a correlation between narcissism and

variables such as poor self-esteem, shame, assertiveness, and hypercompetitiveness (Watson, Hickman, & Morris, 1996; Watson, Morris, & Miller, 1997-1998), to name only a few.

Previous research by Emmons (1984) revealed the complexity of the NPI. He found four different factors within the NPI that he identified as Leadership/Authority, Self-Absorption/Self-Admiration, Superiority/Arrogance, and Exploitativeness/Entitlement. According to Emmons, Exploitativeness/Entitlement is descriptive of maladaptive narcissism because it is related to variables such as anxiety and neuroticism. Leadership/Authority, Self-Absorption/Self-Admiration, and Superiority/Arrogance were considered by Emmons to be related to adaptive aspects of narcissism, since these factors are strongly related to self-esteem.

Studies by Watson and his colleagues (Watson et al., 1996, 1997-1998) have further supported Emmons hypothesis that Exploitativeness/Entitlement is related to more maladaptive behavior and that Leadership/Authority, Self-Absorption/Self-Admiration, and Superiority/Arrogance are related to adjusted behavior. In the study by Watson et al. (1997-1998), it was found that self-esteem can predict assertiveness and lower goal instability. The authors also found that the NPI and adaptive narcissism were negatively related to goal instability, but positively related to self-esteem and assertiveness. After partial correlations were performed, more specific results were seen. After partialing out the adaptive narcissism factors, the relationship between maladaptive narcissism with low self-esteem became significant (see also Watson, Hickman, & Morris, 1996). It was also found that after partialing out maladaptive narcissism the

positive relation between self-esteem and adaptive narcissism became stronger (see also Watson, Varnell, & Morris, 1999-2000.)

In short, relationships between adaptive narcissism, maladaptive narcissism and self-esteem are sometimes stronger when partial correlations are conducted (Watson, 1996, 1997-1998, 1999-2000). After partial correlations are performed, and the adjusted or maladjusted aspect of narcissism is removed, it makes narcissism either more maladaptive or more adaptive, respectively (Watson, 2005). In other words, when controlling for maladaptive narcissism, adaptive narcissism is more strongly related to mental health, and controlling for adaptive narcissism can make maladaptive narcissism appear to be more maladjusted.

Adaptive narcissism has been related to self-esteem in previous research (Watson et al., 1996). In this study, partial correlations demonstrated a positive correlation between self-esteem and adaptive narcissism when maladaptive narcissism was partialled out. On the contrary, when adaptive narcissism was partialled out, self-esteem was negatively correlated with maladaptive narcissism. Other research has found similar results when doing partial correlations for maladaptive and adaptive narcissism (Watson et al., 1997-1998). In addition, Watson et al. (1996) performed partial correlations controlling for self-esteem, and found that adaptive narcissism “moved” at least somewhat toward the kinds of relationships displayed by the maladjusted Exploitativeness/Entitlement aspect of narcissism. Finally, after partialing out for Exploitativeness/Entitlement, adaptive narcissism was associated with even more adaptive self-functions.

In summary, the relationship of narcissism with adjusted or maladjusted functioning has been analyzed through correlations and partial correlations with variables such as self-esteem. Based on such research, a continuum hypothesis has been suggested. This hypothesis proposes the existence of a psychological continuum with self-esteem belonging at one extreme, followed by the overlap of self-esteem with adaptive narcissism, which is subsequently followed by adaptive narcissism, then the overlap of adaptive narcissism with maladaptive narcissism, and finally by maladaptive narcissism at the other extreme (Watson, 2005). Partial correlations theoretically reflect the effects of removing differing types of variance along this continuum.

Kohut (1977) proposed that self-esteem can vary depending on the kind of frustration self-objects provoke. The kind of frustration presented by self-objects can result in either healthier self-esteem or maladaptive narcissism. Kohut's hypothesis is parallel to the continuum hypothesis because self-esteem might change according to circumstances related to self-objects and is not necessarily stable over time. This can be seen in patients who are optimally frustrated by the psychoanalyst. For example, after the individual starts gaining more highly internalized self-esteem, the person will likely shift toward the more adaptive narcissism side of the continuum, being further from the maladaptive end. In short, individuals may fluctuate between the extremes of the continuum hypothesis of self-functioning based on the history of frustrations with self-objects.

As previously stated, persons theoretically have healthy self-esteem when they are able to internalize the structures necessary through which they can do for themselves psychologically what was done for them previously by others (Kohut, 1977). If the

person does not have a high and stable self-esteem, provided by internal structures, he or she will fall into narcissistic rage when an injury to the self or a “narcissistic injury” is encountered. Such persons are more likely to fall along the maladaptive narcissism end of the continuum. Hence, self-esteem and the degree to which it is internalized potentially becomes the link that helps in attempts to understand the relationship between narcissism and aggression.

Following Kohut’s “Psychology of the Self” and what he proposed about narcissistic rage, and Emmons (1984) suggestion about adaptive and maladaptive narcissism, as well as the continuum hypotheses (Watson, et al., 1996, 1997-1998), the following hypotheses are proposed:

Hypothesis 1a: Adaptive narcissism is negatively correlated with aggression.

Hypothesis 1b: Maladaptive narcissism is positively correlated with aggression.

Hypothesis 1c: Adaptive narcissism is positively correlated with self-esteem.

Hypothesis 1d: Maladaptive narcissism is negatively correlated with self-esteem.

The continuum hypothesis suggests that adaptive narcissism is closely related to adjusted behavior such as higher self-esteem, and that maladaptive narcissism is closely related to maladjusted behavior (Watson et al., 1996, 1997-1998). The continuum hypothesis also suggests that these relationships are more pronounced when partialing out



for maladaptive narcissism and adaptive narcissism, respectively. Based on these suggestions, the following hypotheses are proposed:

Hypothesis 2a: After partialing out maladaptive narcissism, the negative correlation between adaptive narcissism and aggression will be stronger (or clearer).

Hypothesis 2b: After partialing out for adaptive narcissism, maladaptive narcissism will have a stronger (or clearer) positive correlation with aggression.

Additional hypotheses focused on self-esteem were proposed based on Kohut's (1977) view that those who have more internalized structures have a stronger sense of self and higher self-esteem. These structures will allow them to comfort themselves whenever their sense of self is threatened, or when presented with a narcissistic injury, thus not acting with narcissistic rage (Kohut, 1972/1978). As previously mentioned, Watson et al. (1996, 1997-1998) proposed that adjusted behavior, such as higher self-esteem, is negatively related to maladaptive narcissism, and that these relationships are more pronounced when partialing out for adaptive narcissism. Based on these suggestions the following hypotheses were proposed:

Hypothesis 3a: Self-esteem is negatively correlated with aggression.

Hypothesis 3b: After partialing out for adaptive narcissism, self-esteem will have a stronger (or clearer) negative correlation with aggression.

The following hypotheses will determine whether the relationship between narcissism and aggression are moderated by self-esteem. The importance of the

moderator is that it “affects the direction and/or strength of the relation between an independent variable... and a dependent variable” (Baron & Kenny, 1986, p. 1174). The previous literature suggests, for example, that adaptive narcissism might be more incompatible with aggression in those who are also high in self-esteem (i.e., those who presumably had more internalized structures of positive self-regard). In contrast, maladaptive narcissism might be even more strongly linked with aggression in those who were low in self esteem (i.e., those who presumably had diminished internal structures of positive self-regard).

Hypothesis 4a: Self-esteem moderates the relationship between adaptive narcissism and aggression.

Hypothesis 4b: Self-esteem moderates the relationship between maladaptive narcissism and aggression.

### *Contingencies of Self-Worth*

According to Bushman and Baumeister (1998), when individuals have high regard for themselves, and when an ego threat is present, they are more likely to act aggressively. But not all ego threats are similar for everyone. Some people are more sensitive in some aspects of their self-esteem than others. As proposed by Kohut (1977), some people who internalized structures of self-regard might be able to maintain their self-esteem by themselves, while others still rely on self-objects to maintain theirs. As previously mentioned, individuals with high and unstable self-esteem are more likely to act aggressively when others fail to maintain their self-esteem by not praising them or by insulting them (Kernis et al., 1993).

Self-esteem is perceived in different ways because the factors that maintain a high self-esteem vary according to the individual. For Crocker and Wolfe (2001), contingencies of self-worth (CSW) are “domain[s]... of outcomes on which a person has staked his or her self-esteem, so that person’s view of his or her value or worth depends on perceived successes or failures... to self-standards in that domain” (p. 594). Therefore, self-worth contingencies must be met to have a higher self-esteem, and these contingencies will depend on the individual (Crocker, Luhtanen, Cooper, & Bouvrette, 2003; Crocker & Wolfe, 2001). CSW are theoretically formed over time and are a result of the individual’s social environment (Crocker & Wolfe). These contingencies must be fulfilled in order for the individual to believe that he or she is worthy.

There are two kinds of CSW by which people maintain their self-esteem: external and internal contingencies (Crocker, Luhtanen, et al., 2003; Crocker & Wolfe, 2001). External contingencies are the contingencies that are dependent on factors that are not controlled by the individual; they include academic competence, appearance, approval from others, competition, and family support. In contrast, internal contingencies depend solely on psychological processes that operate within the individual; these contingencies include virtue and God’s love. Internal contingencies are healthier contingencies than external CSW, and are related to higher levels of well being and a healthy self-esteem. For Crocker and Wolfe, CSW are organized by the level of importance to the individual, and depending on how strong the contingency is, some contingencies will be more accessible than others.

Because external CSW are the less healthy contingencies, they can lead to inappropriate behavior. An inappropriate behavior that can be related to CSW is alcohol

abuse (Luhtanen & Crocker, 2005). In this Luhtanen and Crocker study, virtue, God's love, and academic competence were the CSW that predicted abstinence from alcohol. Individuals whose self-worth is based on academic competence may cheat on tests, or if individuals base their self-worth on approval from others, they may lie to get their approval (Crocker & Wolfe, 2001). Aggression may be another socially unacceptable behavior individuals may use when their CSW are not fulfilled. Crocker and Wolfe proposed that "many social problems, such as drug abuse, [and]... aggression... may be related not only to the level of one's self-esteem but to the highly contingent nature of that self-esteem and to the domains in which it is contingent" (p. 606). When narcissists have a low sense of self-worth, they tend to show more emotional responses, such as anger and anxiety (Rhodewalt & Morf, 1998). It can be assumed that for most narcissists, self-esteem is based on external contingencies of self-worth. Indeed, Kohut's (1977) theory and its emphasis on the importance of self-objects suggests that this should be the case.

Crocker and Wolfe (2001) hypothesized that some contingencies are related to low self-esteem, especially external CSW, given that these contingencies are not always satisfied by others. If CSW are internal, it is possible to have a higher self-esteem because people are not dependent on others, and they are able to fulfill their own self-esteem needs by themselves. For this reason, internal contingencies like God's love are presumably easier to fulfill than external contingencies. Successes and failures that people go through are reflected by increases or decreases in self-esteem, in accordance with their CSW (Crocker, Sommers, & Luhtanen, 2002).

In another study, Crocker, Karpinski, Quinn, and Chase (2003) found that, when the CSW of an individual was based upon academic competence, if he or she failed a test (which would constitute an ego threat), the individual tended to feel worthless and their self-esteem plummeted. As a CSW, academic competence is at least potentially more hurtful than beneficial to the individual, since it is an external contingency. One conclusion is therefore that students whose self-esteem is based on academic performance will have lower self-esteem overall.

In sum, CSW can help determine the stability of self-esteem and what determines it, whether it is external or internal factors. If CSW are internal, people will be likely to have higher and healthier self-esteem, instead of unhealthier self-esteem as someone with external CSW. Individuals with external CSW will be more likely to act aggressively if they encounter the ego threat of failing to receive the desired external support of their self-worth. Hence, individuals who have external CSW will presumably be more likely to score higher in the maladaptive aspect of narcissism. Again, as suggested by Kohut (1977), it can be argued that individuals who were not optimally frustrated by self-objects base their self-esteem in external CSW.

In short, Kohut (1977) proposed that individuals who have been optimally frustrated are able to develop healthy psychological structures that will allow them to fulfill their own needs for esteeming the self. Because internal CSW leads to healthier self-esteem, the following hypotheses are proposed:

Hypothesis 5a: Self-Esteem is positively correlated with Internal CSW.

Hypothesis 5b: Self-Esteem is negatively correlated with External CSW.

According to Kohut (1977) individuals who develop internal structures are able to maintain their self-esteem and sense of self by themselves, and do not rely on others to maintain their self-esteem. This can be similar to individuals who base their self-esteem on internal CSW. These individuals are able to comfort themselves when presented with a narcissistic injury, and are less likely to act aggressively (Kohut, 1972/1978). Based on these views by Kohut, the following hypotheses are proposed

Hypothesis 6a: Internal CSW is negatively correlated with Aggression

Hypothesis 6b: External CSW is positively correlated with Aggression

Based on the continuum hypothesis (Watson et al., 1996, 1997-1998), adaptive narcissism is closely related to adjusted behavior, such as higher self-esteem, and maladaptive narcissism is closely related to maladjusted behavior. Because internal CSW are correlated with higher and healthier self-esteem, the following hypotheses are proposed:

Hypothesis 7a: Adaptive Narcissism is positively correlated with Internal CSW.

Hypothesis 7b: Adaptive Narcissism is negatively correlated with External CSW.

Hypothesis 8a: Maladaptive Narcissism is negatively correlated with Internal CSW.

Hypothesis 8b: Maladaptive Narcissism is positively correlated with External CSW.

According to Baron and Kenny (1986), mediators can help explain the relationship of two variables, “how or why such effects occur” (p. 1176). Because of the

expected correlations between narcissism and aggression, as well as the expected correlation of these variables with CSW, the following hypothesis will be analyzed to further explain the relation between narcissism and aggression:

Hypothesis 9a: CSW act as mediators between Adaptive Narcissism and Aggression.

Hypothesis 9b: CSW act as mediators between Maladaptive Narcissism and Aggression.

## Method

### *Participants*

Participants in this study were 623 undergraduate students from an Introduction to Psychology course at The University of Tennessee at Chattanooga. They received extra credit as an incentive for their participation. Out of the 623 participants, 408 were female, and 215 were male. The mean age was 19.0 (SD = 2.19). Most were Caucasian (73.5%), followed by African American (18.9%), Hispanics (2.4%), Asian/Oriental (1.6%), and Middle Eastern (.6%), while the rest of the participants either failed to indicate their race or were of another race (2.9%).

### *Materials*

A questionnaire packet was given to the participants. The packet included a demographic section in which participants reported their sex, age, and race. This section was followed by the following scales: Conditioning Reasoning Test for Aggression (which will be used in a separate project and will receive no further mention in the present study), Anger Scale, Self-Esteem Scale, Narcissistic Personality Inventory, and the Contingencies of Self-Worth Scale (see Appendix A).

*Aggression.* The Anger Scale was used to measure the explicit aggression of participants. This scale was obtained from the International Personality Item Pool (IPIP). The items in this scale are similar to the items in the NEO-PI-R created by Costa and McCrae (1992). It includes statements like “I lose my temper,” and “I seldom get mad.” The items of this scale were measured using a 5-point Likert scale that ranged from “Very Inaccurate” (0) to “Very Accurate” (4), (see Section 2 Appendix A). The reliability of the scale is reportedly  $\alpha = .88$ .

Aggression was measured with an anger scale because according to Anderson and Bushman (2002), anger plays an important part in aggression. According to these authors, anger is related to aggression in a number of ways. First, “anger reduces inhibitions against aggressing” (p. 44), and those inhibitions are reduced because anger justifies acting aggressively, and cognitive processes are also blocked by anger. Anger is also related to aggression because it “allows a person to maintain an aggressive intention over time” (p. 45). Third, people tend to be influenced by anger because it is “used as an information cue” (p. 45), therefore interpreting ambiguous circumstances in a hostile light. Fourth, anger also “primes aggressive thoughts,... and associated expressive-motor behaviors” (p. 45). Finally, “anger energizes behavior by increasing arousal levels” (p. 45), thus leading to a more aggressive behavior.

*Self-Esteem.* The scale used to measure the self-esteem of participants was also obtained from the IPIP. It includes items such as “I just know that I’ll be a success,” “I am less capable than most people,” and “I seldom feel blue.” Participants responded to how accurate the statements were based in a 5-point Likert scale that ranged from “Very



Inaccurate” (0) to “Very Accurate” (4), (See Section 3 Appendix A). The reliability of the scale is  $\alpha = .84$ .

*Narcissism.* The 54-item Narcissistic Personality Inventory (Raskin & Hall, 1981) was included in the questionnaire packet to measure non-pathological narcissism (see Section 4, Appendix A). This Inventory uses a structured forced-choice format. Participants chose between a statement that describes a narcissistic trait or a statement that does not. According to previous research (Emmons, 1984), the NPI measures four different factors. The Exploitativeness/Entitlement which was measured with items such as “I expect a great deal from other people.” The other three factors constitute for adaptive narcissism, Leadership/Authority consisted of items such as, “I see myself as a good leader.” Superiority/Arrogance contained such items as, “If I ruled the world it would be a much better place.” And finally Self-Absorption/Self-Admiration included items like “I know I am good because everybody keeps telling me so.” The reliability of the scale is  $\alpha = .72$  (Raskin, 1981).

*Self-Worth.* The Contingences of Self-Worth Scale (CSWS; Crocker, Luhtanen, et al., 2003) was administered to analyze the internal and external foundations of self-esteem (see Section 5, Appendix A). This scale measures seven different domains of contingent self-worth. With regard to the internal components, virtue was measured with items like “Doing something I know is wrong makes me lose my self-respect.” The second internal factor, God’s love, was measured with items like “My self-worth is based on God’s love.” The external domains include appearance, which is measured with items like “When I think I look attractive, I feel good about myself.” An item to measure competition was, “My self-worth is affected by how well I do when I am competing with

others.” The factor associated with academic competence consisted of items such as “I feel bad about myself whenever my academic performance is lacking.” Family support includes statements like “Knowing that my family members love me makes me feel good about myself.” Finally the approval of others factor is measured with items like, “My self-esteem depends on the opinions others hold of me.” The reliability of the different contingencies of self-worth range from  $\alpha = .51$  (academic competence) to  $\alpha = .88$  (God’s love.)

### *Procedure*

Data were gathered from students after they signed informed consent forms. Participants responded to the questionnaire booklet in large classroom settings, and general instructions were given before they completed the questionnaire. Participants recorded their responses on a scantron sheet. Those who were inattentive when completing the questionnaire were eliminated from the final sample by looking at responses to three “filtering” items placed randomly within the questionnaire. For the items “I am carefully reading all the questions in this questionnaire,” and “I have carefully read all questions in this questionnaire,” participants who answered “Very Inaccurate” and “Moderately Inaccurate” were eliminated from the final sample. Also, participants who choose “I am not paying close attention to this questionnaire” instead of “I have carefully read each question in this questionnaire,” were also eliminated from the final sample. Participant responses were converted into computer data file using optical scanning equipment.

*Data Analysis*

Before performing any analyses, a few modifications were made with the NPI factors as proposed by Emmons (1984). The item “I am assertive” belonged to the Leadership/Authority factor, as well as to the Superiority/Arrogance factor, so this item was eliminated from the Superiority/Arrogance factor because the factor loadings of Emmons showed a stronger association with Leadership/Authority (.49) than with Superiority/Arrogance (.35). Another item was also included in two different factors: “People always seem to recognize my authority.” It belonged to both Exploitativeness/Entitlement and to Leadership/Authority, and in this study was eliminated from the Exploitativeness/Entitlement factor. Again, this occurred because the loading reported by Emmons on Exploitativeness/Entitlement was weaker (.35) than on Leadership/Authority (.40). Finally, to simplify the tests of hypotheses, the three factors representative of adaptive narcissism, Superiority/Arrogance, Leadership/Authority, and Self-Absorption/Self-Admiration, were averaged into one variable: adaptive narcissism.

For all statistical analyses, the Statistical Package for the Social Sciences (SPSS) Versions 16.0 and 17.0 were used. First, descriptive statistics were determined for all the scales. The internal reliabilities for the scales were then computed using Cronbach’s alpha.

Zero-order correlations were used to analyze the relationships among self-esteem, aggression, maladaptive narcissism (as measured by the Exploitativeness/Entitlement factor), adaptive narcissism, internal CSW, and external CSW. To further analyze relationships related to the hypotheses, partial correlations were also performed. In three sets of these analyses, maladaptive narcissism and then adaptive narcissism were

partialled out. To determine if self-esteem moderated the relationship of narcissism with aggression, a hierarchical regression was performed. Finally, the recently developed statistical analysis procedure of Preacher and Hayes (2008) was used to test hypotheses about the possible influences of multiple mediators.

## Results

Means of the variables, as well as the standard deviations, are listed in Table 1 (all tables and figures are located in Appendix A.) The reliability coefficients for all scales and the number of items in each are also listed. The internal reliabilities of the different scales were ranged from .53 to .93.

Zero-order correlations for all variables are listed in Table 2. The first hypothesis (H1a) proposed that adaptive narcissism is negatively correlated with aggression. The results did not support this hypothesis ( $r = .03, p > .05$ ), since the variables were not significantly related. In Hypothesis 1b, it was hypothesized that maladaptive narcissism was positively correlated with aggression. Results demonstrated that indeed a positive significant correlation existed between these variables ( $r = .29, p < .01$ ). For Hypothesis 1c, adaptive narcissism was expected to positively correlate to self-esteem. Results supported Hypothesis 1c; adaptive narcissism was significantly correlated with self-esteem ( $r = .41, p < .01$ ). Finally, Hypothesis 1d stated that maladaptive narcissism would be negatively correlated to self-esteem. Results did not show a significant correlation in support of this hypothesis ( $r = -.03, p > .05$ ).

To further explore Watson's (2005) continuum hypothesis, partial correlations were performed (see Tables 3 and 4). Hypothesis 2a, proposed that the negative correlation between adaptive narcissism and aggression would be stronger after partialing

out for maladaptive narcissism, than the correlation that was tested in Hypothesis 1a. Results supported this hypothesis (see Table 3), as the partial correlation between adaptive narcissism and aggression was  $r = -.12$  ( $p < .01$ ), while the zero-order correlations was not significant ( $r = .03$ ,  $p > .05$ ). Hypothesis 2b proposed that after partialing out adaptive narcissism, the positive correlation between maladaptive narcissism and aggression would be even stronger, than observed in zero-order correlations in Hypothesis 1b. Results supported this hypothesis (see Table 4). As the partial correlation was ( $r = .31$ ,  $p < .01$ ), while the zero-order correlation was ( $r = .29$ ,  $p < .01$ ).

The third set of hypotheses proposed that self-esteem is negatively correlated to aggression (H3a). It was also proposed that after partialing out adaptive narcissism this correlation would be stronger than in the zero-order correlation (H3b). Zero-order correlations (Table 2) confirmed a negative correlation between self-esteem and aggression ( $r = -.42$ ,  $p < .01$ ). After partialing out adaptive narcissism, a slightly more negative correlation was observed ( $r = -.47$ ,  $p < .01$ ). Therefore, both hypotheses were supported.

It was also of interest to determine if self-esteem moderated the relationship of adaptive and maladaptive narcissism with aggression (H4a, and H4b). The relevant variables were standardized prior to this analysis (Cohen, Cohen, West, & Aiken, 2003). Cross products between self-esteem and the narcissism measures were then computed. In a hierarchical multiple regression, the respective covariates were entered on the first step, self-esteem and narcissism were entered on the second step as simultaneous predictors of

aggression, with the cross-product entered in on the third step (Frazier, Tix, & Barron, 2004).

The test of H4a (see Table 5) did not present evidence of a significant interaction between self-esteem and adaptive narcissism predicting aggression. However, significant main effects of both variables on aggression were identified:  $\beta = -.46$  for self-esteem and  $\beta = .12$  for adaptive narcissism,  $p \leq .01$  for both, these effects occurred after controlling for maladaptive narcissism. The results of the test for Hypothesis 4b (see Table 6) also did not support the hypothesized interaction of self-esteem and maladaptive narcissism predicting aggression. However, over and above the effect of adaptive narcissism, which was controlled, two main effects were identified:  $\beta = -.46$  for self-esteem and  $\beta = .22$  for maladaptive narcissism,  $p \leq .01$  for both.

With respect to the fifth set of hypotheses, it was expected that the relationship between CSW, and self-esteem would vary according to whether the contingencies were internal or external. More specifically, it was proposed in Hypothesis 5a that self-esteem would correlate positively with internal CSW. It was also proposed in Hypothesis 5b that self-esteem would correlate negatively with external CSW. As expected, self-esteem was significantly related to both forms of internal CSW: God's love ( $r = .26, p < .01$ ) and virtue ( $r = .15, p < .01$ ) (see Table 2), thus fully supporting H5a. Partially supporting Hypothesis 5b, a significant negative correlation was seen for some of the external forms of CSW, such as appearance ( $r = -.20, p < .01$ ), competition ( $r = -.08, p < .05$ ), and approval from others ( $r = -.26, p < .01$ ). However, there was not a significant correlation between self-esteem and academic competence. Surprisingly, self-esteem correlated positively with the external CSW of family support ( $r = .13, p < .01$ ).

It was also hypothesized that internal CSW would correlate negatively with aggression (H6a) and that external CSW would correlate positively with aggression (H6b). From the correlations in Table 2, it can be seen that, as proposed, internal CSW are negatively related to aggression. This included the internal CSW of God's love and virtue ( $r = -.14, p < .01$  and  $r = -.20, p < .01$ , respectively). Some of the external CSW measures correlated positively with aggression: this included appearance ( $r = .18, p < .01$ ) and competition ( $r = .15, p < .05$ ). Approval from others, academic competence and family support were not significantly related to aggression ( $r = .05, r = -.01$  and  $r = -.08, p > .05$  respectively).

It was also expected in the present study that adaptive narcissism would be positively correlated with internal CSW (H7a), and negatively correlated with external CSW (H7b). Results partially supported Hypothesis 7a, as adaptive narcissism was positively correlated with God's love ( $r = .08, p < .05$ ), but negatively correlated with virtue ( $r = -.09, p < .05$ ). Hypothesis 7b was also partially supported by significant correlations between adaptive narcissism, and external CSW, such as approval from others ( $r = -.20, p < .01$ ), and academic competence ( $r = -.09, p < .05$ ). For the other forms of external CSW, family support and appearance, there was no significant correlation with adaptive narcissism. Interestingly, for the external CSW of competition, there was a positive correlation with adaptive narcissism ( $r = .15, p < .01$ ), instead of the expected negative correlation.

Relationships between maladaptive narcissism and the CSW measures were also analyzed. It was hypothesized that maladaptive narcissism was negatively correlated with internal CSW (H8a). The results of the correlations showed support for this hypothesis.

God's love ( $r = -.09, p < .05$ ), as well as virtue ( $r = -.22, p < .01$ ) correlated negatively with maladaptive narcissism. It was also hypothesized that maladaptive narcissism was positively correlated with external CSW (H8b). This hypothesis was only supported for the external CSW of competition ( $r = .28, p < .01$ ). For the other external CSW measures, appearance ( $r = .08$ ), approval from others ( $r = .00$ ), and academic competence ( $r = -.08$ ), the relationships were not significant. Finally, the correlation between maladaptive narcissism and family support was not as expected, as the correlation turned out to be significantly negative ( $r = -.10, p < .05$ ) rather than positive.

To analyze if CSW mediated the relationship between adaptive narcissism and aggression (H9a), and the relationship between maladaptive narcissism and aggression (H9b), multiple mediation analysis proposed by Preacher and Hayes (2008) were performed. Multiple mediation analysis helps solve some of the shortcomings of the causal step approach to analyze mediation proposed by Baron and Kenny (1986). In contrast to Baron and Kenny's causal step approach, multiple mediation analysis does not require a significant total effect of the independent variable on the dependent variable for a mediation to be possible (e.g., Collins, Graham, & Flaherty, 1998; Shrout & Bolger, 2002).

Multiple mediation analysis allows interpreting mediations of several variables in the same analysis instead of performing multiple simple mediations. An advantage of multiple mediation analysis over the causal step approach is that it can determine if the possible mediators as a set, as well as a specific mediator, mediates the effect of the independent variable on the dependent variable (Preacher & Hayes, 2008). Another advantage of this approach is that it relies upon bootstrapping to create more accurate



statistical estimates which are useful in evaluating the contribution of each separate mediator in the prediction of the dependent variable.

In the analyses to determine mediation, maladaptive narcissism was controlled for when testing for the relationship between adaptive narcissism and aggression. When testing the relationship between maladaptive narcissism and aggression, adaptive narcissism was controlled for. Statistical estimates from this analysis came from 5,000 bootstrapped samples, providing more stable estimates than the ones that could be generated with other methods.

As is evident in Table 7, all dimensions of CSW as a set, did not mediate the effect of adaptive narcissism on aggression. The total effect of adaptive narcissism on aggression was  $-.051$  ( $p < .01$ ), while the direct effect of adaptive narcissism on aggression was  $-.043$  ( $p < .01$ ). After examining the specific CSW mediators, (Table 7) it was evident that appearance was the only aspect of CSW that significantly mediates the effect between adaptive narcissism and aggression ( $-.016$  to  $-.002$ ). Appearance significantly mediated the relationship between adaptive narcissism and aggression because the BC 95% confidence intervals (CI) in Table 7 did not include zero. If CI of a mediator does not include zero, the mediation is significant (Preacher & Hayes, 2008). Because of these results, it can be said that appearance partially mediated the relationship between adaptive narcissism and aggression (see Figure 1). Pairwise contrasts of indirect effects shown in Table 7 suggest that the total indirect effect through appearance were significantly different from those effects through competition, family support, and academic competence. This means that appearance is a stronger mediator influence than competition, family support, and academic competence.

A similar analysis was performed to test the mediation between maladaptive narcissism and aggression. The results of this analysis are summarized in Table 8. In this hypothesis, all CSW as a set mediated the effect of maladaptive narcissism on aggression. The total effect of maladaptive narcissism on aggression was .124 ( $p < .01$ ), while the direct effect of maladaptive narcissism on aggression after considering the influence of the CSW mediator was .101 ( $p < .01$ ). Thus there was evidence for partial mediation. After examining the specific confidence intervals, for the individual CSW mediators (Table 8), it was seen that appearance and virtue appeared to be the only CSW forms that mediated the relationship between maladaptive narcissism and aggression, this can also be seen in Figure 2. Pairwise contrasts of indirect effects shown in Table 8 shows a significant difference between appearance and academic competence, as well as appearance and approval from others. This means that the indirect effect of appearance is stronger than the indirect effect of academic competence and of approval from others. Virtue, on the other hand was significantly different from approval from others, family support, and academic competence. Therefore, the indirect effect of virtue is stronger than the indirect effect of approval from others, family support, and academic competence.

## Discussion

The purpose of the present study was to explore the relationships between narcissism, self-esteem, and contingencies of self-worth, and of these variables with aggression. Hypothesis 1b and Hypothesis 1c supported the views proposed by Emmons (1984) that adaptive narcissism was a more adjusted form of behavior than maladaptive narcissism, which represented a more maladjusted form of behavior. If adaptive

narcissism represents a more adjusted form of psychological functioning, then it should be positively related to self-esteem. However, if maladaptive narcissism represents a more maladjusted form of functioning, then it should be directly related to aggression. However, tests of Hypothesis 1a and Hypothesis 1d did not confirm negative correlations between adaptive narcissism and aggression, and between maladaptive narcissism and self-esteem respectively. These correlations were expected based on the continuum hypotheses proposed by Watson, et al. (1996, 1997-1998), where adjusted behavior (i.e. self-esteem) and maladjusted behavior were in both extremes of the continuum, thus being inversely correlated. More precise measures of aggression, and perhaps self-esteem might have yielded support of these hypotheses.

As expected, Hypotheses 2a and 2b provided further support for the continuum hypothesis. This continuum of self-functioning ranges from self-esteem to maladaptive narcissism, and a clearer relationship among the variables can be observed after performing partial correlations sensitive to this continuum. As anticipated, the non-significant correlation between adaptive narcissism and aggression became significant after controlling for maladaptive narcissism, and the positive relationship between maladaptive narcissism and aggression became stronger after controlling for adaptive narcissism.

Hypothesis 3a provided further support to Kohut's (1977, 1972/1978) views that those individuals with internalized structures, thus higher self-esteem, are less likely to act aggressively. Hypotheses 3b, provided additional support to the continuum hypotheses (Watson et al., 1996, 1997-1998), that adjusted behavior, such as higher self-esteem, is negatively related to maladjusted behavior, such as aggression, and that these

relationships are more pronounced when partialing out for adaptive narcissism.

Internalized structures allow the person to comfort themselves whenever the sense of self is threatened, or when presented with a narcissistic injury, thus not acting with narcissistic rage (Kohut, 1972/1978).

Hypothesis 4a, that self-esteem moderates the relationship between adaptive narcissism and aggression and Hypothesis 4b, that self-esteem moderates the relationship between maladaptive narcissism and aggression, were not supported. Baron and Kenny (1986) may have provided a possible explanation for these results when they suggested that, for the interaction term, or the product of the moderator and the predictor, to be more specific, it would be preferable if the moderator variable (e.g., self-esteem) was not correlated with narcissism (predictor) and aggression (criterion). Previous hypotheses demonstrated a significant correlation between self-esteem and adaptive narcissism, and between self-esteem and aggression.

Hypothesis 5a supported the literature; self-esteem was positively related with the internal CSW. Despite the failure to find a significant relationship between self-esteem and academic competence, results for Hypothesis 5b were generally consistent with previous research findings; self-esteem was negatively related with the external CSW, appearance, competition, and approval from others. Kohut (1977) proposed that, when an individual is able to internalize the structures by which he maintains his sense of self (i.e., internal factors), the person will be more likely to have higher self-esteem. In contrast, Kohut argued that when an individual is not able to develop the internal structures by which he can maintain his sense of self, he is more likely to depend on others (i.e., external factors) to maintain a higher self-esteem, thus having lower self-esteem. Results

for this hypothesis were similar to the results on the study by Crocker, Luhtanen, et al. (2003).

However, the relationship of the external CSW family support with self-esteem was not as expected. Family support correlated positively with self-esteem, instead of negatively as hypothesized. Such results would theoretically reflect an internal form of CSW. Based on Kohut's "Psychology of the Self," the child initially functions with the primary caregivers as a part of the self (i.e., as self-objects), prior to differentiating the caregivers from the self. With maturity, the child internalizes the primary caregivers, and at some level functions with them as part of the self. Hence, Kohut's theory suggests that family support might become a more internalized form of self-worth. These unexpected family support findings perhaps confirmed that suggestion.

The results for Hypotheses 6a and 6b were in general conformity with Kohut's thinking; those with internalized structures (internal CSW), because they do not depend on others, are less likely to act aggressively. According to Kohut (1977), individuals able to internalize healthy structures of positive self-regard will be more likely to have a healthier self-esteem and, therefore, will be less likely to act aggressively following a narcissistic injury. Such individuals would not act aggressively because they do not rely on others to maintain their self-esteem. They would be able to comfort themselves if they receive a narcissistic injury. However, those individuals who do not have internalized structures (external CSW) and depend on others to maintain their self-esteem are more likely to act aggressively, especially those who base their self-worth on appearance and competition.

The results for Hypothesis 7a partially confirmed Emmons (1984) suggestion that adaptive narcissism is positively related with adjusted behavior, as well as Crocker and Wolfe (2001) suggestion that internal CSW would be related to healthier self-esteem, which is a more adjusted form of behavior. The internal CSW, God's love related as expected with adaptive narcissism; however, the opposite correlation occurred for the internal CSW associated with virtue. A possible explanation for this unexpected result is that, when people base their self-worth on virtue, they are more likely to treat others with respect, and will try to be sensitive to them, doing what they think to be the right thing, not assuming that they are any better than others. They, therefore, may be less likely to show characteristics of adaptive narcissism, which Emmons defined as Leadership/Authority, Self-Absorption/Self-Admiration, and Superiority/Arrogance. In contrast, those individuals who do not base their self-worth on virtue will perhaps care less about the feelings of others, or how they act in front of others, thus not caring if they are blatantly arrogant, and may more clearly portray characteristics of adaptive narcissism.

The results for Hypothesis 7b supported the negative relationships between adaptive narcissism and external CSW, academic competence and approval from others. For the external CSW defined by competition, the results were not expected; the correlation with adaptive narcissism was positive rather than negative. Competition refers to outdoing or being superior to others (Crocker, Luhtanen, et al. 2003). In his analysis of adaptive narcissism, Emmons identified Leadership/Authority, Self-Absorption/Self-Admiration, and Superiority/Arrogance factors that do seem to include at least some elements of outdoing or being better than others. The suggestion, therefore, is that aspects

of competitiveness may be associated with a healthier form of narcissistic self-functioning. Indeed, a measure of healthy competitiveness has been developed (Ryckman, Hammer, Kaczor, and Gold, 1996) and the present results indicate that the CWS dimension of competition may correlate positively with it.

Results for Hypothesis 8a provide support to the suggestion that maladaptive narcissism is negatively related with adjusted behavior such as higher self-esteem (Watson et al, 1996), and, therefore, negatively related with internal CSW (Crocker, Luhtanen, et al., 2003). Results for Hypothesis 8b provide further support for the suggestion that maladaptive narcissism is more related to maladjusted behavior (Emmons, 1984), less related to adjusted behavior such as higher self-esteem (Watson et al, 1996), and therefore more related to external CSW (Crocker, Luhtanen, et al.), but only for the competition-based CSW. However, the results were not expected for the external CSW of family support, the correlation between this external CSW and maladaptive narcissism was negative. A possible explanation for this unexpected result between family support and maladaptive narcissism can be similar to the previous explanation of the positive correlation between family support and self-esteem previously discussed.

Results for Hypothesis 9a showed that appearance was the only external CSW that partially mediated the relationship between adaptive narcissism and aggression, reducing the total effect of adaptive narcissism on aggression. Individuals with higher levels of adaptive narcissism reported lower levels of aggression. The appearance-based self-worth helped explain this relationship. Adaptive narcissism has a negative influence on the tendency to base individual self-worth on external contingencies that may be

detrimental to that person's well being (e.g., appearance). Although adaptive narcissism is negatively associated with appearance, appearance still retains a positive influence on the negative outcome of aggression. Therefore, the ability of adaptive narcissism to diminish aggression appears to reflect, in part, its inhibition of the appearance aspect of CSW.

Hypothesis 9b was partially supported due to the specific CSW components of appearance and virtue, which reduced the total effect of maladaptive narcissism on aggression. These CSW may therefore provide an explanation regarding why individuals who score higher on maladaptive narcissism are more likely to act aggressively. Appearance partially mediated the relationship between maladaptive narcissism and aggression, such that those higher in maladaptive narcissism also reported higher levels of appearance, and higher levels of aggression. Overall, the ability of maladaptive narcissism to enhance aggressive behavior appears to reflect, in part, its increase of the appearance aspect of CSW.

Another CSW that partially mediated the relationship between maladaptive narcissism and aggression was virtue. The relationship between maladaptive narcissism and virtue was negative, suggesting that individuals who score higher on maladaptive narcissism are less likely to base their self-worth on virtue. Virtue was also a significant negative predictor of aggression. In other words, individuals who base their self-worth on virtue are less likely to act aggressively. Overall, the implication is that maladaptive narcissism promotes aggression through an inhibition of virtue that also works against aggression.



*Limits and Future Research*

The present study was not without limitations. The IPIP measure of self-esteem was used, but the Rosenberg Scale may have been more appropriate given its wider use in previous research looking at narcissism (e.g., Watson et al., 1996). Aggression was also measured with the IPIP Anger Scale, but perhaps a more specific measure of aggression, like physical or verbal aggression, might have been a more usefully explicit measure of aggression. Another limitation of the present research could have been the population of college students. A more varied population could have yielded different results, especially given that the majority of the participants were female Caucasians.

In sum, results for the present research supported the continuum hypothesis of Watson et al. (1996). Specifically, adaptive narcissism was in fact related to the more adjusted forms of functioning associated with self-esteem. In addition, maladaptive narcissism correlated directly with aggression, and self-esteem correlated inversely with aggression. Partial correlations tended to strengthen these kinds of results. Again, all of these findings supported the continuum hypothesis.

From the perspective of research into CSW, it was expected that internal CSW would correlate positively with positive forms of functioning like self-esteem and adaptive narcissism, and would correlate inversely with aggression and maladaptive narcissism. Results were as expected, with the exception of virtue, which was inversely related to adaptive narcissism. As for external CSW, a negative correlation with self-esteem and adaptive narcissism was expected, as well as a positive correlation with aggression and maladaptive narcissism. Results were consistent with expectations, except for family support which displayed correlations with maladaptive narcissism and self-

esteem that were opposite predictions. Another unexpected result was the correlation between competition with adaptive narcissism.

Possible directions for future research include the measurement of implicit aggression to further comprehend the relationship of aggression with CSW, as well as the relationship with narcissism and self-esteem. It would also be useful to determine sex differences within this area of research. Such an analysis would also clarify the relationship between the different forms of CSW, as well as sex differences in explicit aggression and narcissism. To further analyze the relationship between aggression and CSW, it might also be useful to conduct an experiment in which different forms of CSW are threatened or challenged.

In sum, as expected, variables indicative of more maladjusted forms of functioning, such as low self-esteem, maladaptive narcissism, and external contingencies of self-worth, were associated with greater aggression. In contrast, variables that were more indicative of better functioning, such as higher self-esteem, adaptive narcissism and internal CSW, did not predict greater aggression. These results helped clarify the important relationships that may exist among narcissism, self-esteem and aggression.

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Appendix

## Appendix A

Table 1. *Descriptive Statistics for all Scales*

Subscale	Mean	SD	$\alpha$	# of items	N
Self-Esteem	29.52	6.25	.80	10	612
<i>Narcissism</i>					
Adaptive Narcissism	4.56	1.83	.82	28	610
Maladaptive Narcissism	3.30	2.01	.53	10	617
<i>External CSW</i>					
Appearance	2.55	0.75	.69	5	613
Competition	2.57	0.82	.81	5	614
Approval from Others	1.78	0.94	.76	5	609
Family Support	3.04	0.71	.74	5	612
Academic Competence	2.88	0.77	.78	5	612
<i>Internal CSW</i>					
God's Love	2.80	1.17	.93	5	615
Virtue	2.79	0.77	.75	5	607
Aggression	1.59	0.69	.82	10	623

Table 2. Zero-Order Correlations among Scales

<i>Subscales</i>	1	2	3	4	5	6	7	8	9	10	11
1. Self-Esteem	-										
2. Adaptive Narcissism	.41 **	-									
3. Maladaptive Narcissism	-.03	.47 **	-								
4. Appearance	-.20 **	-.06	.08	-							
5. Competition	-.08 *	.15 **	.28 **	.39 **	-						
6. Approval from Others	-.26 **	-.20 **	-.00	.42 **	.24 *	-					
7. Family Support	.13 **	-.05	-.10 **	.24 **	.27 *	.15 **	-				
8. Academic Competence	.04	-.09 *	-.08	.29 **	.37 *	.20 **	.49 **	-			
9. God's Love	.26 **	.08 *	-.09 *	.03	.02	-.01	.39 **	.22 **	-		
10. Virtue	.15 **	-.09 *	-.22 **	.05	.14 *	.14 **	.49 **	.40 **	.38 **	-	
11. Aggression	-.42 **	.03	.29 **	.18 **	.15 *	.05	-.08	-.01	-.14 **	-.20 **	-

\*\* =  $p < .01$ , \* =  $p < .05$

Table 3. *Partial Correlations for study variables controlling for Maladaptive Narcissism*

<i>Subscales</i>	1	2	3	4	5	6	7	8	9	10
1. Self-Esteem	-									
2. Adaptive Narcissism	.48 **	-								
3. Appearance	-.20 **	-.11 **	-							
4. Competition	-.08	.03	.39 **	-						
5. Approval from Others	-.26 **	-.23 **	.42 **	.25 **	-					
6. Family Support	.13 **	-.00	.25 **	.31 **	.16 **	-				
7. Academic Competence	.04	-.06	.30 **	.41 **	.20 **	.48 **	-			
8. God's Love	.25 **	.14 **	.04	.05	-.01	.39 **	.21 **	-		
9. Virtue	.14 **	.01	.07	.21 **	.15 **	.48 **	.40 **	.37 **	-	
10. Aggression	-.43 **	-.12 **	.17 **	.07	.05	-.05	.02	-.11 **	-.15 **	-

\*\* =  $p < .01$

Table 4. *Partial Correlations for study variables controlling for Adaptive Narcissism*

<i>Subscales</i>	1	2	3	4	5	6	7	8	9	10
1. Self-Esteem	-									
2. Maladaptive Narcissism	-.28 **	-								
3. Appearance	-.19 **	.12 **	-							
4. Competition	-.16 **	.24 **	.41 **	-						
5. Approval from Others	-.20 **	.11 **	.42 **	.28 **	-					
6. Family Support	.17 **	-.09 *	.24 **	.28 **	.15 **	-				
7. Academic Competence	.09 *	-.04	.28 **	.39 **	.19 **	.49 **	-			
8. God's Love	.24 **	-.14 **	.03	.01	.01	.40 **	.23 **	-		
9. Virtue	.20 **	-.20 **	.04	.16 **	.13 **	.48 **	.40 **	.39 **	-	
10. Aggression	-.47 **	.31 *	.19 **	.15 **	.05	-.08	-.00	-.14 **	-.20 **	-

\*\* =  $p < .01$ , \* =  $p < .05$

Table 5. *Hierarchical Regression Results for Aggression predicted by Adaptive Narcissism and Self-Esteem*

<i>Predictors</i>	Aggression			
	Step 1	Step 2	Step 3	
	$\beta$			
Maladaptive Narcissism	.29 **	.22 **	.22 **	
Adaptive Narcissism		.12 **	.12 **	
Self-Esteem		-.46 **	-.46 **	
Adaptive Narcissism x Self-Esteem			.02	
	$\Delta R^2$	.09	.18	.00
	$\Delta F$	56.58 **	70.27 **	.17
	Adjusted $R^2$	.09	.26	.26
	F	56.58 **	70.08 **	52.53 **

All standardized before entry.  $N = 599$

\*\* =  $p \leq .01$

Table 6. *Hierarchical Regression Results for Aggression predicted by Maladaptive Narcissism and Self-Esteem*

<i>Predictors</i>	Aggression		
	Step 1	Step 2	Step 3
		$\beta$	
Adaptive Narcissism	.03	.12 **	.12 **
Maladaptive Narcissism		.22 **	.22 **
Self-Esteem		-.46 **	-.46 **
Maladaptive Narcissism x Self-Esteem			.02
	$\Delta R^2$	.00	.26
	$\Delta F$	.68	104.67 **
	Adjusted $R^2$	.00	.26
	F	.68	70.08 **

All standardized before entry.  $N = 599$

\*\* =  $p \leq .01$

Table 7. *Multiple Mediation Results for Adaptive Narcissism Predicting Aggression through Multiple CSW*

	Point Estimate	SE	BC CI estimates		Significant
			Lower	Upper	
<i>Adaptive Narcissism -- Mediators-- Aggression</i>					
Appearance	-.007	.004	-.016	-.002	*
Competition	.001	.001	-.001	.005	
Approval from Others	.004	.005	-.005	.014	
Family Support	.000	.001	-.002	.003	
Academic Competence	-.001	.002	-.006	.001	
God's Love	-.003	.003	-.010	.002	
Virtue	-.001	.003	-.006	.004	
TOTAL	-.007	.007	-.022	.001	
<i>Contrasts</i>					
Appearance vs. God's Love	-.004	.005	-.014	.005	
Appearance vs. Competition	-.008	.004	-.017	-.002	*
Appearance vs. Virtue	-.006	.005	-.016	.001	
Appearance vs. Approval from Others	-.011	.007	-.027	.001	
Appearance vs. Family Support	-.007	.004	-.017	-.001	*
Appearance vs. Academic Competence	-.006	.004	-.016	-.000	*
God's Love vs. Competition	-.004	.003	-.011	.002	
God's Love vs. Virtue	-.002	.004	-.009	.006	
God's Love vs. Approval from Others	-.007	.006	-.019	.004	
God's Love vs. Family Support	-.003	.003	-.010	.002	
God's Love vs. Academic Competence	-.002	.003	-.010	.004	
Competition vs. Virtue	.001	.003	-.004	.008	
Competition vs. Approval from Others	-.003	.005	-.014	.006	
Competition vs. Family Support	.001	.002	-.002	.005	
Competition vs. Academic Competence	.001	.002	-.002	.006	
Virtue vs. Approval from Others	-.004	.005	-.015	.006	
Virtue vs. Family Support	-.001	.003	-.006	.004	
Virtue vs. Academic Competence	.000	.003	-.005	.006	
Approval from Others vs. Family Support	.004	.005	-.006	.014	
Approval from Others vs. Academic Competence	.004	.005	-.005	.016	
Family Support vs. Academic Competence	.001	.002	-.002	.007	
Full model Adjusted R <sup>2</sup> = .14, F (9, 599) = 11.77, p < .01					

BC CI = bias corrected confidence interval estimates, based on 5,000 bootstrap samples at a 95% CI.

N=609



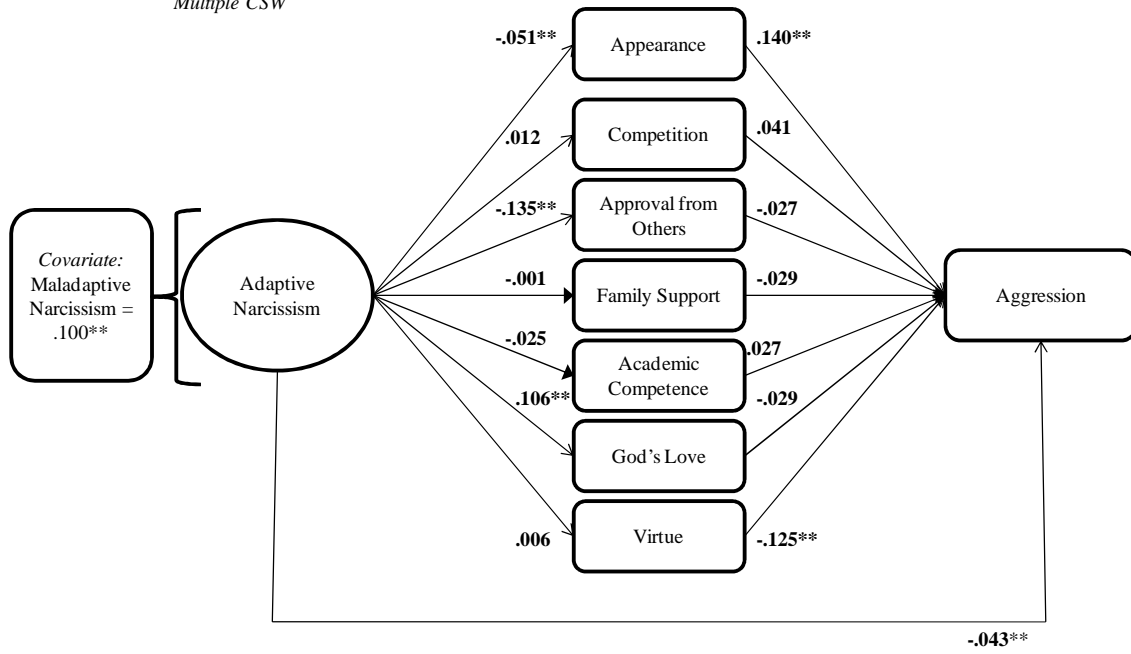
Table 8. *Multiple Mediation Results for Maladaptive Narcissism Predicting Aggression through Multiple CSW*

	Point Estimate	SE	BC CI estimates		Significant
			Lower	Upper	
<b>Maladaptive Narcissism -- Mediators-- Aggression</b>					
Appearance	.007	.004	.002	.017	*
Competition	.004	.005	-.004	.014	
Approval from Others	-.002	.002	-.007	.002	
Family Support	.001	.002	-.002	.007	
Academic Competence	-.001	.001	-.005	.001	
God's Love	.003	.003	-.002	.010	
Virtue	.011	.005	.003	.023	*
TOTAL	.024	.008	.010	.042	*
<i>Contrasts</i>					
Appearance vs. God's Love	.004	.005	-.003	.015	
Appearance vs. Competition	.003	.006	-.009	.017	
Appearance vs. Virtue	-.003	.006	-.016	.008	
Appearance vs. Approval from Others	.009	.005	.002	.022	*
Appearance vs. Family Support	.006	.004	-.001	.015	
Appearance vs. Academic Competence	.008	.004	.002	.017	*
God's Love vs. Competition	-.002	.006	-.013	.009	
God's Love vs. Virtue	-.008	.006	-.021	.001	
God's Love vs. Approval from Others	.004	.004	-.002	.013	
God's Love vs. Family Support	.002	.004	.006	.010	*
God's Love vs. Academic Competence	.003	.003	-.001	.011	
Competition vs. Virtue	-.006	.006	-.012	.005	
Competition vs. Approval from Others	.006	.005	-.003	.017	
Competition vs. Family Support	.031	.005	-.005	.014	
Competition vs. Academic Competence	.004	.005	-.003	.015	
Virtue vs. Approval from Others	.012	.005	.004	.025	*
Virtue vs. Family Support	.009	.005	.001	.022	*
Virtue vs. Academic Competence	.011	.005	.003	.024	*
Approval from Others vs. Family Support	-.003	.003	-.010	.003	
Approval from Others vs. Academic Competence	-.001	.003	-.007	.004	
Family Support vs. Academic Competence	.002	.003	-.002	.009	
Full model Adjusted $R^2 = .14$ , $F(9, 599) = 11.77$ , $p < .01$					

BC CI = bias corrected confidence interval estimates, based on 5,000 bootstrap samples at a 95% CI.

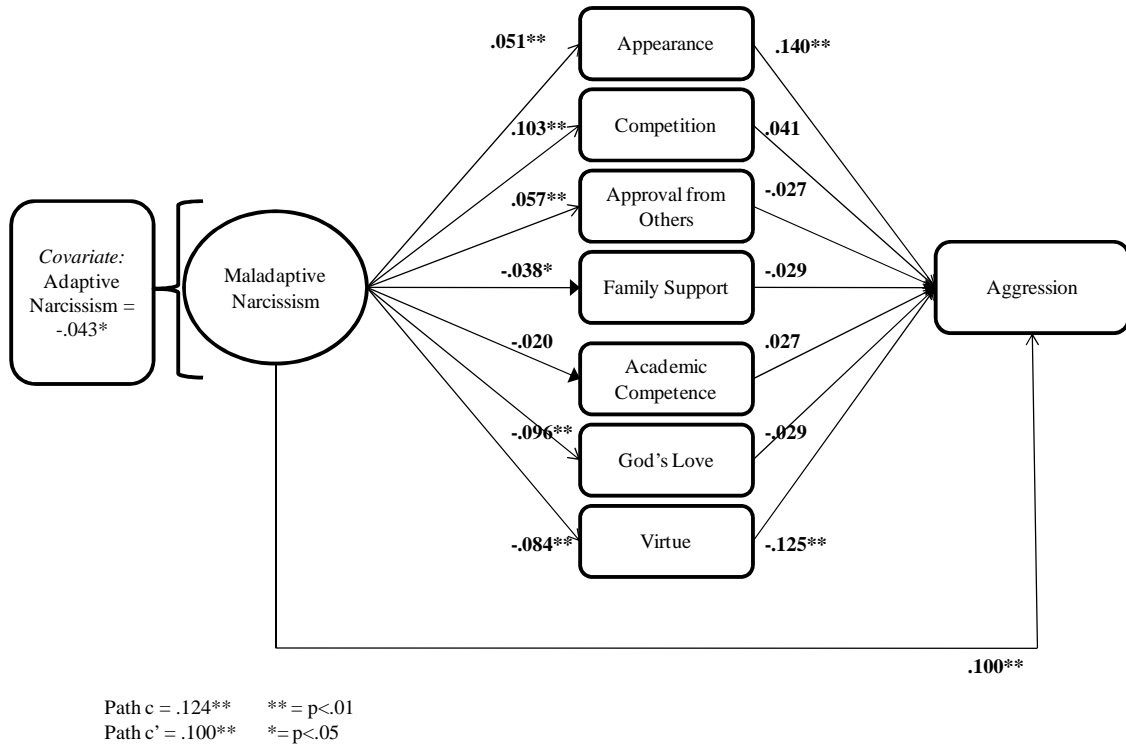
N=609

Figure 1. Path Model Summarizing Multiple Mediation Analysis results for Adaptive Narcissism predicting Aggression through Multiple CSW



p<.01 \*\* Path c = -.051\*  
 p<.05\* Path c' = -.043\*\*

Figure 2. Path Model Summarizing Multiple Mediation Analysis results for Maladaptive Narcissism predicting Aggression through Multiple CSW



Appendix B

**Sp08AgN**

In the following questionnaire there are five sections that record a number of your beliefs, attitudes, characteristics, and experiences. We would like you to read carefully the instructions for each section and then respond to all the items in that section. When you have decided your response to any particular item, you should note the letter which corresponds to your answer and blacken in the proper space on your answer sheet using a No. 2 pencil. Work fairly rapidly, and do not brood over any one statement too long. Except for questions measuring some of your personal characteristics (e.g., your gender and age), there are no right or wrong answers; some people will agree and others disagree with each of the statements. All your answers will be kept strictly confidential.

Before beginning, we would like you to supply the following information:

- A.** Write **Sp08AgN** on your answer sheet where it says “INSTRUCTOR.”
- B.** In the first column for your student number, indicate your sex:
  - 0. Male
  - 1. Female
- C.** In the next two columns of the student number, please enter your age.
- D.** In column 4 of the student number, please indicate your race:
  - 0. African American/Black
  - 1. Caucasian/White
  - 2. Hispanic
  - 3. Middle Eastern
  - 4. Asian/Oriental
  - 5. Other

Leave the remaining columns in the student number blank. Make sure that you have filled in **NONE** of the columns reserved for your name.

You may now begin the questionnaire. Please take care in understanding and responding to the instructions in each section. Please respond to all items and enter your responses clearly on the answer sheet.

**SECTION 2**

**ITEMS: 26-35:** Carefully read each of the following statements and decide how inaccurately or accurately it describes you:

- A. Very inaccurate**
- B. Moderately inaccurate**
- C. Neither inaccurate nor accurate**
- D. Moderately accurate**
- E. Very accurate**

- 26. I get angry easily.
- 27. I get irritated easily.
- 28. I rarely get irritated.
- 29. I am not easily annoyed.
- 30. I get upset easily.
- 31. I rarely complain.
- 32. I am often in a bad mood.
- 33. I lose my temper.
- 34. I seldom get mad.
- 35. I keep my cool.

**GO ON TO THE NEXT SECTION**

**SECTION 3**

**ITEMS: 36-46:** Carefully read each of the following statement and decide how inaccurately or accurately it describes you:

- A. Very inaccurate**
- B. Moderately inaccurate**
- C. Neither inaccurate nor accurate**
- D. Moderately accurate**
- E. Very accurate**

- 36. I feel comfortable with myself.
- 37. I just know that I'll be a success.
- 38. I am less capable than most people.
- 39. I seldom feel blue.
- 40. I like to take responsibility for making decisions.
- 41. I feel that my life lacks a direction.
- 42. I am carefully reading all the questions in this questionnaire.
- 43. I question my ability to do my work properly.
- 44. I know my strength.
- 45. I dislike myself.
- 46. I feel that I'm unable to deal with things.

**GO ON TO THE NEXT SECTION**

**SECTION 4**

**ITEMS 47-101:** This section consists of a number of pairs of statements that you may or may not identify with. Look at the example below.

**A. I like having authority over other people.**

**B. I don't mind following orders.**

Which of these two statements do you **most** agree with? If you identify with "liking to have authority over other people" more than you identify with "not minding following orders," then you should choose A over B.

You may identify with both A and B. In this case, you should choose that statement that you feel **most comfortable** identifying yourself with. If you do not identify with either statement, then choose the one that would be **least objectionable** for you to identify yourself with.

Read each pair of statements carefully and be sure to make a choice for every pair **marking the letter space "A" or "B"** on the answer sheet; **do not skip any.** This is not a test, so there are no right or wrong answers.

47. A. I am a fairly sensitive person.  
B. I am more sensitive than most other people.
48. A. I have a natural talent for influencing people.  
B. I am not good at influencing people.
49. A. Modesty doesn't become me.  
B. I am essentially a modest person.
50. A. Superiority is something that you acquire with experience.  
B. Superiority is something you are born with.
51. A. I would do almost anything on a dare.  
B. I tend to be a fairly cautious person.

52. A. I would be willing to describe myself as a strong personality.  
B. I would be reluctant to describe myself as a strong personality.
53. A. When people compliment me, I sometimes get embarrassed.  
B. I know that I am good because everybody keeps telling me so.
54. 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.
55. A. People just naturally gravitate towards me.  
B. Some people like me.
56. A. I can usually talk my way out of anything.  
B. I try to accept the consequences of my behavior.
57. A. When I play a game I don't mind losing once in a while.  
B. When I play a game I hate to lose.
58. A. I prefer to blend in with the crowd.  
B. I like to be the center of attention.
59. A. I will be a success.  
B. I'm not too concerned about success.
60. A. I am no better or no worse than most people.  
B. I think I am a special person.
61. A. I am not sure if I would make a good leader.  
B. I see myself as a good leader.
62. A. I am assertive.  
B. I wish I were more assertive.
63. A. I like having authority over people.  
B. I don't mind following orders.
64. A. There is a lot I can learn from other people.  
B. People can learn a great deal from me.
65. A. I find it easy to manipulate people.  
B. I don't like it when I find myself manipulating people.
66. A. I am not paying close attention to this questionnaire.  
B. I am carefully reading each question in this questionnaire.



67. A. I insist upon getting the respect that is due to me.  
B. I usually get the respect I deserve.
68. A. I don't particularly like to show off my body.  
B. I like to display my body.
69. A. I can read people like a book.  
B. People are sometimes hard to understand.
70. A. If I feel competent, I am willing to take responsibility for making decisions.  
B. I like to take responsibility for making decisions.
71. A. I am at my best when the situation is at its worst.  
B. Sometimes I don't handle difficult situations too well.
72. A. I just want to be reasonably happy.  
B. I want to amount to something in the eyes of the world.
73. A. My body is nothing special.  
B. I like to look at my body.
74. A. Beauty is in the eye of the beholder.  
B. I have good taste when it comes to beauty.
75. A. I try not to be a show off.  
B. I am apt to show off if I get the chance.
76. A. I always know what I am doing.  
B. Sometimes I'm not sure of what I am doing.
77. A. I sometimes depend on people to get things done.  
B. I rarely depend on anyone else to get things done.
78. A. I'm always in perfect health.  
B. Sometimes I get sick.
79. A. Sometimes I tell good stories.  
B. Everybody likes to hear my stories.
80. A. I usually dominate any conversation.  
B. At times, I am capable of dominating a conversation.
81. A. I expect a great deal from other people.  
B. I like to do things for other people.

82. A. I will never be satisfied until I get all that I deserve.  
B. I take my satisfactions as they come.
83. A. Compliments embarrass me.  
B. I like to be complimented.
84. A. My basic responsibility is to be aware of the needs of others.  
B. My basic responsibility is to be aware of my own needs.
85. A. I have a strong will to power.  
B. Power for its own sake doesn't interest me.
86. A. I don't very much care about new fads and fashions.  
B. I like to start new fads and fashions.
87. A. I am envious of other people's good fortune.  
B. I enjoy seeing other people have good fortune.
88. A. I am loved because I am lovable.  
B. I am loved because I give love.
89. A. I like to look at myself in the mirror.  
B. I am not particularly interested in looking at myself in the mirror.
90. A. I am not especially witty or clever.  
B. I am witty and clever.
91. A. I really like to be the center of attention.  
B. It makes me uncomfortable to be the center of attention.
92. A. I can live my life any way I want to.  
B. People can't always live their lives in terms of what they want.
93. A. Being an authority doesn't mean that much to me.  
B. People always seem to recognize my authority.
94. A. I would prefer to be a leader.  
B. It makes little difference to me whether I am a leader or not.
95. A. I am going to be a great person.  
B. I hope I am going to be successful.
96. A. People sometimes believe what I tell them.  
B. I can make anybody believe anything I want them to.

97. A. I am a born leader.  
B. Leadership is a quality that takes a long time to develop.
98. A. I wish someone would someday write my biography.  
B. I don't like people to pry into my life for any reason.
99. 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.
100. A. I am more capable than other people.  
B. There is a lot that I can learn from other people.
101. A. I am much like everybody else.  
B. I am an extraordinary person.

**GO ON TO THE NEXT SECTION**

**SECTION 5**

**ITEMS 102-137:** Carefully read each of the following statements and decide how you would feel. If you haven't experienced the situation in a particular statement, please answer how you think you would feel if that situation occurred.

- A. I Strongly disagree**
- B. I tend to disagree**
- C. Neither disagree nor agree**
- D. I tend to agree**
- E. I Strongly agree**

- 102. When I think I look attractive, I feel good about myself.
- 103. My self-worth is based on God's love.
- 104. I feel worthwhile when I perform better than others on a task or skill.
- 105. My self-esteem is unrelated to how I feel about the way my body looks.
- 106. Doing something I know is wrong makes me lose my self-respect.
- 107. I don't care if other people have a negative opinion about me.
- 108. Knowing that my family members love me makes me feel good about myself.
- 109. I feel worthwhile when I have God's love.
- 110. I can't respect myself if others don't respect me.
- 111. My self-worth is not influenced by the quality of my relationships with my family members.
- 112. Whenever I follow my moral principles, my sense of self-respect gets a boost.
- 113. Knowing that I am better than others on a task raises my self-esteem.
- 114. My opinion about myself isn't tied to how well I do in school.
- 115. I couldn't respect myself if I didn't live up to a moral code.
- 116. I don't care what other people think of me.
- 117. When my family members are proud of me, my sense of self-worth increases.
- 118. My self-esteem is influenced by how attractive I think my face or facial features are.
- 119. My self-esteem would suffer if I didn't have God's love.
- 120. Doing well in school gives me a sense of self-respect.

121. Doing better than others gives me a sense of self-respect.
122. My sense of self-worth suffers whenever I think I don't look good.
123. I feel better about myself when I know I'm doing well academically.
124. What others think of me has no effect on what I think about myself.
125. When I don't feel loved by my family, my self-esteem goes down.
126. My self-worth is affected by how well I do when I am competing with others.
127. My self-esteem goes up when I feel that God loves me.
128. My self-esteem is influenced by my academic performance.
129. I have carefully read all questions in this questionnaire.
130. My self-esteem would suffer if I did something unethical.
131. It is important to my self-respect that I have a family that cares about me.
132. My self-esteem does not depend on whether or not I feel attractive.
133. When I think that I'm disobeying God, I feel bad about myself.
134. My self-worth is influenced by how well I do on competitive tasks.
135. I feel bad about myself whenever my academic performance is lacking.
136. My self-esteem depends on whether or not I follow my moral/ethical principles.
137. My self-esteem depends on the opinions others hold of me.

**That completes this questionnaire**

**THANK YOU FOR YOUR HELP!!!**

Appendix C

THE UNIVERSITY OF TENNESSEE  
AT CHATTANOOGA

Institutional Review Board  
Dept 5305  
615 McCallie Avenue  
Chattanooga, TN 37403.2598  
(423)425.5369

MEMORANDUM

**IRB #: 08-043**

TO: Grisel Garcia  
c/o Dr. Paul Watson

FROM: Lindsay Pardue, Director of Research Integrity

DATE: March 27, 2008

SUBJECT: IRB #08-043: Narcissism, Self-Esteem, and Self-Worth as Predictors of  
Implicit and Explicit Aggression

The Institutional Review Board has reviewed and approved your application and assigned you the IRB number listed above. You must include the following approval statement on research materials seen by participants and used in research reports:

***The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-043.***

Please remember that you must complete Form C when the project is completed or provide an annual report if the project takes over one year to complete. The IRB Committee will make every effort to remind you prior to your anniversary date; however, it is your responsibility to ensure that this additional step is satisfied.

Please remember to contact the IRB Committee immediately and submit a new project proposal for review if significant changes occur in your research design or in any instruments used in conducting the study. You should also contact the IRB Committee immediately if you encounter any adverse effects during your project that pose a risk to your subjects.

For any additional information, please consult our web page <http://www.utc.edulirb> or email [instrb@utc.edu](mailto:instrb@utc.edu)

Best wishes for a successful research project.

Curriculum Vitae  
**Grisel M. García Ramírez**

Address: PO Box 7

San Sebastián, PR 00685

Phone number: (787)560-8643

E-mail: [Grisel-Garcia@utc.edu](mailto:Grisel-Garcia@utc.edu)

Education

Graduate:

University of Tennessee, Chattanooga, TN

M.S. Psychology - Research Concentration

Expected Graduation date: August 2009

Advisor: Paul Watson, PhD

Thesis Title: Narcissism, Self-esteem and Self-worth as Predictors of Aggression

Undergraduate:

2007, University of Puerto Rico, Mayagüez, PR

B.A. Psychology

Research Experience

January 2009-May2009: **Research Assistant:** Relationships of Religious Wisdom and Belief with Subjective Well-Being, Gratitude, and Optimism

University of Tennessee, Chattanooga, EU

Supervisor: Paul Watson, PhD

Duties:

- Gather data
- Prepare data file on SPSS

August 2007-December 2008: **Graduate Assistant**

United Way, Chattanooga TN

Duties:

- Data analysis
- Administering questionnaires
- Entering data (SPSS, Excel)
- Maintaining data file

August 2007-December 2007: **Research Assistant**: Relationships of Anti-Catholic Attitudes with Religious Orientation, Right Wing Authoritarianism, and Background Religious and Political Characteristics

University of Tennessee, Chattanooga, TN

Supervisor: Paul Watson, PhD

Duties:

- Gather data
- Prepare data file on SPSS

August 2006- December 2006: **Research Assistant**

University of Puerto Rico, Mayagüez PR

Supervisor: Milagritos González Rivera, PhD

Duties:

- Search and analyze literature for a future project on Academic Dishonesty.

July 2006: **Research Assistant**

Tufts University, Medford, MA

Supervisor: Samuel Sommers, PhD

Duties:

- Gather Data
- Enter data into SPSS



January - May 2005: **Research Assistant:**

Assistant in the Project “Group between Us”

University of Puerto Rico, Mayagüez PR

Supervisor: Milagritos González Rivera, PhD

Duties:

- Edit a program manual for educating HIV enrolled in a prevention and support program.

Teaching Experience

August 2007-May 2008: **Teaching Assistant**

University of Tennessee, Chattanooga TN

Supervisor: Michael Biderman, PhD

Duties: Instructor of Statistics 204.

- This includes weekly lab practicum on how to use SPSS
- Administering grades of the labs.

December 2007- August 2007:

Enrolled in Graduate Teaching of College Psychology. Three credit hour graduate course taught by Dr. Ozbek.

Duties:

- Preparing the syllabus of the class
- Preparing one undergraduate psychology class lecture
- Giving one undergraduate psychology class lecture and video taping of lecture
- Critique of teaching video tapes by classmates
- Research project – topic: How to Teach Cross-Cultural Perspectives

Presentation

Campbell, M; Campbell, S; **García G**; Hartman, P; Johnson, R; Ozbek, I.N; Rodebaugh, L; Smallwood E; Smith R; (March 2008) Teaching Psychology: Tell Me and I Forget. Show Me and I Remember. Involve Me and I Understand. Teaching of Psychology Conference, Atlanta, GA, USA, March 2008.

Hidalgo, R., Dillard, E., *McReynolds*, Linda, Gamble, A., Ashley, H., **García, G.**, Warren, A., Metzger, R. (2008) "Assessing Voluntary Enrollment Programs Using Self-Report Data: Project Ready for School in Chattanooga, Tennessee, USA" Southeast Evaluation Association Conference, Tallahassee, FL, USA, February, 2008.

Hidalgo, R., Dillard, E., *McReynolds*, Linda, Gamble, A., Ashley, H., **García, G.**, Warren, A., Metzger, R. (2008) "Assessing Voluntary Enrollment Programs Using Self-Report Data: Project Ready for School in Chattanooga, Tennessee, USA". III European Congress of Methodology, Oviedo, Spain, July 2008.

Languages

Spanish – native language

English – speak fluently and read/write with high proficiency

Memberships

Professional Organizations:

January 2009- Present: Member of Society of Personality and Social  
Psychology

Scholarly Associations:

October 2008-Present: Member Psi Chi

2005-2007: Member of the Psychology Student Association (AEPSIC)  
of the University of Puerto Rico, Mayagüez, PR