

DIFFERENCES IN SOCIO-COGNITIVE PROCESSES AMONG INDIVIDUALS  
EXHIBITING CHARACTERISTICS OF GRANDIOSE AND VULNERABLE  
NARCISSISM: A MULTIMETHOD APPROACH

Courtney Sanders, M.S.

Dissertation Prepared for the Degree of  
DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS

July 2023

APPROVED:

Sharon Rae Jenkins, Major Professor

Danica Slavish, Committee Member

Patricia Kaminski, Committee Member

Donald Dougherty, Chair of the Department of  
Psychology

Albert Bimper, Executive Dean of the College  
of Liberal Arts and Social Sciences

Victor Prybutok, Dean of the Toulouse Graduate  
School

Sanders, Courtney. *Differences in Socio-Cognitive Processes among Individuals Exhibiting Characteristics of Grandiose and Vulnerable Narcissism: A Multimethod Approach*.

Doctor of Philosophy (Clinical Psychology), July 2023, 99 pp., 18 tables, references, 107 titles.

This study explored how well specific socio-cognitive processes (i.e., interpersonal problems, empathy, hostile attributional biases, envy/jealousy) predicted the manifestations of both grandiose and vulnerable narcissism. Additionally, we explored the impact of both forms of narcissism on the presence of maladaptive social behaviors (i.e., the perpetration of psychological abuse). We found that domineering interpersonal behaviors and a propensity to fantasize predicted significant unique variance in grandiose narcissism; envy of others, hostile attributional biases, and a propensity to fantasize predicted significant unique variance in vulnerable narcissism. Additionally, while domineering interpersonal behaviors and hostile attributional biases predicted significant variance in psychological abuse perpetration, only vulnerable narcissism added significant unique variance to its regression model. Lastly, only domineering interpersonal behaviors, envy of others, and hostile attributional biases predicted significant unique variance in psychological abuse victimization; narcissism was nonsignificant. The results of our study will contribute to an increased understanding of the nature of both grandiose and vulnerable narcissism and the impacts these personality styles have on an individual's ability to function effectively in interpersonal relationships.

Copyright 2023

by

Courtney Sanders

## ACKNOWLEDGEMENTS

I am so thankful for all of the faculty, peers, family, and friends who supported me on this project and throughout my graduate career. To my mentor, Dr. Sharon Rae Jenkins: thank you for all of your patience, support, and encouragement over the past five years. I have grown as a professional and as a person in ways I never thought possible, and none of it could have happened without you. Thank you to my committee members, Dr. Danica Slavish and Dr. Patricia Kaminski, for your guidance and your kindness throughout this process. Thank you to my amazing supervisors, Dr. Jennie Fincher, Dr. Mildred Betancourt, Dr. Michael Dolan, and Dr. Elizabeth Gibbons, for helping me become the clinician I am today.

I am so appreciative of my cohort mates, lab mates, and friends (Samantha Saldana, Alana Fondren, Jabeen Shamji, Allison Laajala, and Sarah Hurley, among others) for their humor, their solidarity, and their friendship throughout these years. Y'all made a challenging, albeit rewarding, experience so much easier. Thank you to my parents and my brother, for listening to me, comforting me, and encouraging me through this process and throughout my entire life. To my husband's family: thank you for welcoming me into your family, and for supporting me always. Last (but definitely not least), to my husband, Ray Cline: I do not have the words to express how thankful I am to have you in my life. You believed in me when I could not believe in myself, and saw the best in me always. I am who I am today because of all of you.

## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS .....	iii
LIST OF TABLES .....	vi
CHAPTER 1. INTRODUCTION .....	1
Psychoanalytic Theories of Narcissism .....	2
Sigmund Freud.....	2
Heinz Kohut .....	4
Otto Kernberg .....	6
Melanie Klein.....	8
Further Exploration of Narcissism.....	10
Grandiose Narcissism .....	10
Vulnerable Narcissism.....	12
Interpersonal Correlates of Narcissism.....	15
Empathic Functioning.....	16
Empathic Functioning in Narcissism .....	17
Social Information Processing Deficits in Narcissism.....	20
Perpetration of Psychological Abuse by Narcissistic Individuals .....	23
Measurement Issues .....	26
The Present Study .....	30
CHAPTER 2. METHOD .....	33
Participants.....	33
Procedure .....	33
Measures .....	33
Pathological Narcissism Inventory (PNI; Pincus et al., 2009).....	33
Inventory of Interpersonal Problems (IIP-32; Horowitz et al., 2003; Alden, Wiggins, & Pincus, 1990).....	34
Interpersonal Reactivity Index (IRI; Davis, 1980) .....	36
“Reading the Mind in the Eyes” Test-Revised Version (RMET; Baron-Cohen et al., 1997; Baron-Cohen et al., 2001).....	37

Social Information Processing–Attribution and Emotional Response Questionnaire (SIP-AEQ; Coccaro et al., 2009) .....	38
Multidimensional Measure of Emotional Abuse (MMEA; Murphy & Hoover, 1999) .....	39
Data Analysis Plan .....	40
Descriptive Analyses .....	40
Hypotheses-Testing Analyses .....	40
Exploratory Analyses .....	42
CHAPTER 3. RESULTS .....	44
Preliminary Analyses .....	44
Univariate Descriptives .....	44
Bivariate Descriptives .....	45
Inferential Analyses .....	50
CHAPTER 4. DISCUSSION .....	57
Main Findings .....	58
Limitations .....	69
Future Directions .....	70
REFERENCES .....	91

## LIST OF TABLES

	Page
Table 1. Measures Used.....	31
Table 2. Descriptive Statistics.....	71
Table 3. Descriptive Characteristics of Variables.....	73
Table 4. Bivariate Associations among Variables of Interest.....	74
Table 5. Cramer’s V Effect Sizes of Associations among Demographic Variables.....	75
Table 6. Point Biserial Correlations among Demographic Variables.....	76
Table 7. ANOVAs of Demographic Variables.....	77
Table 8. Sex Differences in Variables of Interest.....	78
Table 9. Sexual Orientation Differences in Variables of Interest.....	79
Table 10. Racial Differences in Variables of Interest.....	80
Table 11. Gender Identity Differences in Variables of Interest.....	81
Table 12. Relationship Status Differences in Variables of Interest.....	82
Table 13. Hierarchical Regression Analysis for Hypothesis 1: Predicting Grandiose Narcissism .....	83
Table 14. Hierarchical Regression Analysis for Hypothesis 2: Predicting Vulnerable Narcissism .....	84
Table 15. Hierarchical Regression Analysis for Hypothesis 3: Predicting Psychological Abuse Perpetration with Grandiose Narcissism.....	85
Table 16. Hierarchical Regression Analysis for Hypothesis 4: Predicting Psychological Abuse Perpetration with Vulnerable Narcissism.....	86
Table 17. Hierarchical Regression Analysis for Hypothesis 5: Predicting Psychological Abuse Victimization with Grandiose Narcissism.....	88
Table 18. Hierarchical Regression Analysis for Hypothesis 6: Predicting Psychological Abuse Victimization with Vulnerable Narcissism.....	89

## CHAPTER 1

### INTRODUCTION

The term “narcissism” is derived from the mythological tale of Narcissus. According to the Roman poet Ovid, Narcissus was an exceptionally handsome youth who was punished by the goddess Nemesis after rejecting the nymph Echo. Narcissus was cursed to fall in love with his own reflection in a pool of water, where he pined away until he died (History Today, 2018). Thus the term “narcissism” is colloquially used to describe an individual who appears to have an unrealistically inflated sense of self-worth and self-esteem, to the point of appearing to be in love with themselves. The term was first coined in 1899 by German psychiatrist Paul Näcke, who used it to describe a person treating their own body the way they would treat a sexual object (Freud, 1914). Discussion and debate regarding how narcissism manifests in individuals and how other people relate to and experience these individuals have become very common online and in popular media over the past few years.

One possible explanation for the proliferation of narcissism in everyday life and discussion centers around celebrity culture and technological innovation. In 2006 celebrity physician and media personality Dr. Drew Pinsky published a study demonstrating a link between celebrity and narcissism. 200 celebrities who had appeared on Pinsky’s radio show completed the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979) and were found to have higher levels of narcissistic traits compared to the general population (Young & Pinsky, 2006). Interestingly, the celebrities exhibiting the highest scores on the NPI were those on reality television (Young & Pinsky, 2006), i.e., celebrities famous for high levels of exhibitionism and putting their personal lives on display for the world to see. The veneration of celebrities who exhibit narcissistic qualities has been blamed for the proliferation of narcissism in the general



population, as has the creation of technology such as social media, which allows members of the general public to exhibit the attention-seeking behaviors characteristic of narcissistic individuals to gain admiration (MacDonald, 2014).

Much of the popular discussion on narcissism consists of advice and support for individuals who have been negatively affected by people who exhibit narcissistic traits. The term “narcissistic abuse” has been used to describe the pattern of maladaptive interpersonal behaviors often exhibited by narcissistic individuals, and a large number of both mental health professionals and laypeople have created resources and support groups to help affected individuals process and cope with distress stemming from relationships with narcissistic individuals (for example, the community [r/NarcissisticAbuse](#) on the social media application Reddit has over 87,000 members currently). The emphasis on narcissism as a phenomenon that is greatly interpersonal in nature demonstrates a need to further explore how the concept manifests in social relationships and how it is related to other interpersonal behaviors.

This study was designed to further explore the impact narcissistic characteristics have on social relationships. I chose to examine the behaviors exhibited in relationships by narcissistic individuals to develop a deeper understanding of how these personality characteristics impact the people around them. The knowledge gained from this study will add to a body of literature exploring the different ways narcissism is manifested and will contribute to greater comprehension of its nature and influence on social behaviors.

## Psychoanalytic Theories of Narcissism

### Sigmund Freud

The field of psychology’s interest in the development and manifestation of narcissism has its roots in the psychoanalytic tradition, beginning largely with the work of Sigmund Freud.

Freud (1914) postulated that the “overvaluation” (i.e., excessively high value) that parents place on their children is actually a manifestation of their own narcissism turned outward. As a child becomes an adult they develop an ego ideal that consists of rigid, perfectionistic images and deviates from their actual ego (Freud, 1914). This discrepancy between reality and fantasy results in much psychological distress, leading to the development of narcissism as a way to cope with and defend against psychic tension.

Additionally, Freud (1914) argued that there are two main types of narcissism, primary narcissism and secondary narcissism. Primary narcissism occurs during childhood, when the libido is turned inward toward the ego and fuels the ego’s desire to protect and care for itself (Freud, 1914). Primary narcissism is not considered inherently problematic as typical development results in the turning of the libido outward toward external objects as the child develops (Freud, 1914). However, the failure of the libido to remain turned outward results in secondary narcissism (Freud, 1914). This type of narcissism more closely resembles the phenomenon that comes to mind when considering the word narcissism: an individual who is inordinately focused on themselves, to the detriment of their relationships with other people and the world around them.

Freud’s (1914) early postulations of narcissism laid the groundwork for later exploration of the concept. His description of overvaluation outlined what was later determined to be at the root of narcissism, at least in regard to the vulnerable form: a discrepancy between idealized and actual self-images and fragile self-esteem (Miller et al., 2011). Freud’s (1914) distinctions between primary and secondary narcissism also illustrate an important point, more specifically, the point at which narcissism becomes maladaptive. Pathological narcissism goes beyond typical self-confidence and often masks feelings of inferiority. The pattern of behavior exhibited by a

pathologically narcissistic individual is often self-destructive and indicative of distress intolerance and inadequate coping mechanisms and social skills.

Heinz Kohut

Kohut expanded on Freud's theories to further discuss the role of idealization in the manifestation of narcissism. Kohut (1966) coined the term "idealized parental imago" to describe the tendency for infants to regard their parental figures as perfect, and the tendency to identify with the idealized object fosters the development of narcissism. As the child grows and notices imperfections in their idealized parent, they affix these missing qualities to their own internal self-concept (Kohut, 1966). This idealization and devaluation of the parent becomes a hallmark of the child's interpersonal style as they grow into adulthood and begin to exhibit narcissistic traits, as their inability to establish safe and affectionate connections in early childhood negatively impacts their ability to establish meaningful relationships later on. Additionally, the difference in expectations between the ego ideal and actual ego creates psychological distress when an individual is unable to reach the lofty goals set by the ego ideal, leading to the development of narcissism as defense against this conflict.

Kohut's (1966) concept of the "narcissistic self" differs from the idealized parental imago and ego ideal in that it is not idolized as a model of perfection but rather, desires this same admiration itself. He argued that the narcissistic self is not inherently problematic and considers it to be a typical developmental milestone (Kohut, 1966). Kohut's conceptualization of the narcissistic self and the role ambitions play in its development generated his interpretation of the phenomenon later termed "vulnerable narcissism." Kohut believed that an individual's ambitions fuel their behavior and that when an individual fails to achieve their goals they experience a significant amount of psychological distress (Kohut, 1966). The individual will then have a

tendency to fluctuate between a grandiose sense of self and immense shame and inadequacy (Kohut, 1966). Although this vacillation seems to be considered a hallmark of the vulnerable narcissism form specifically, much of the psychoanalytic tradition's discussion of narcissism appears to consider the fluctuation a core feature of narcissism in general.

Like Freud, Kohut (1966) also argued that empathy appears to be implicated in the experience of narcissism. *Primary empathy* describes the infant's internalized experience of the thoughts, feelings, and behaviors of the mother; this empathy first allows an individual to recognize that they share similar experiences with other people (Kohut, 1966). This form of empathy can be considered a boon to an infant's social development, as it fosters their connectedness to others and encourages further social interaction. However, as the infant develops, separates from the mother, and develops other cognitive capabilities, this connection is severed and the use of empathy becomes obstructed (Kohut, 1966). As an adult, the individual struggles to employ the same empathic strategies of childhood, especially when libidinal energy is directed more toward the ego ideal and narcissistic self; the individual becomes more focused on their own experiences than those of other people. Consequently, narcissistic adults often experience an impaired ability to empathize and often struggle to or are incapable of recognizing and understanding the thoughts and feelings of other people, to the detriment of their social relationships.

Kohut's (1966) exploration of narcissism paved the way for future investigation in a manner similar to Freud (1914). Kohut's descriptions of the "idealized parent imago" and the "narcissistic self" illustrate the fragility and instability of the self-concept in individuals exhibiting vulnerable narcissism. This limitation then contributes to the interpersonal difficulties experienced by these individuals, including an impaired ability to understand the thoughts and

feelings of other people. Consequently, not only is the narcissistic individual negatively affected by their own distress, but those around them are similarly impacted.

Otto Kernberg

Much of Kernberg's description of someone with a narcissistic personality focuses on how a narcissistic individual interacts with other people. A narcissistic individual often views others' worth based on what they can provide for them, charming those who admire and praise them while dismissing those who do not meet these needs (Kernberg, 1975). This person may be capable of interacting with other people appropriately, or even pleasantly, on a surface level; however, they lack any deeper interpersonal connections and often possess maladaptive internal object presentations or other problematic psychological structures (Kernberg, 1975). A narcissistic person may not possess the desire to connect more meaningfully with other people, or this yearning may lay outside their conscious awareness (Kernberg, 1975).

Kernberg (1975) asserted that the key features of narcissism are egocentrism, feelings of superiority, and difficulty recognizing and understanding the feelings of others. Narcissistic individuals seem to view both themselves and other people as capable of great deception and hostility and will often act according to societal expectations in order to stave off any aggression that might occur if they do not conform to their surroundings (Kernberg, 1975). Consequently, much of the narcissistic individual's view of the world as a spiteful, desolate environment seems to be a projection of their own internal anger and hollowness (Kernberg, 1975). As such, a narcissistic individual does not completely believe in their superiority; rather this belief serves as a mask of sorts to keep other, more unpleasant beliefs and feelings below the surface.

Kernberg appears to draw similarities to Kohut's description of what is now termed "vulnerable narcissism." Kernberg (1975) acknowledged the pronounced paradox between a

narcissistic individual's inflated self-esteem and their need to receive validation of others, as well as the tendency to vacillate between feelings of grandiosity and worthlessness, which he attributed to deficits in the ego and superego. In typical development the superego, considered to be the "moral center" of the psyche, holds all of the ideal images of the self; while an individual may make plans to strive to achieve some of these idealizations, they are also capable of recognizing that some of these goals aren't necessarily attainable. In contrast, a narcissistic individual holds these ideals within their ego, where they are blended with the individual's sense of self. Consequently, they are not able to recognize that these ideals are unrealistic but consider them to be necessary objectives for them to meet. These individuals can experience much psychological distress when this need is not met and often envy others who possess what they do not. This emotional lability sets the stage for problematic relationships with others as narcissistic individuals are quick to lash out when confronted with a possible ego threat, and likely to resort to socially inappropriate behaviors to avoid this risk.

Kernberg (1975) points to experiences in early childhood to try and explain how pathological narcissism came to develop in an individual. He described the parents of a narcissistic individual as people who are distant, uncaring, and subtly antagonistic (Kernberg, 1975). Consequently, the parents or parental figures are often the narcissistic individual's first exposure to a world that is believed to be filled with hostile, threatening individuals, a belief that is reinforced through subsequent interactions with these figures (Kernberg, 1975). Consequently, the narcissistic individual quickly learns to adopt the same characteristics to shield themselves from harm. Oftentimes narcissistic individuals were exploited by their parents as a child, pushed to achieve greatness in some domain as an extension of their parents (Kernberg, 1975). Again this sets the stage for later life, as narcissistic individuals learn not only the importance of

receiving admiration from others, but also to avoid relying on others for support lest they be taken advantage of once again (Kernberg, 1975). Ironically, narcissistic individuals are often excessively independent and emotionally distant while simultaneously relying on other people to provide them with attention and praise to improve their self-esteem. This contradictory dynamic likely contributes to the turbulence present in the relationships of narcissistic individuals and suggests an even more tumultuous internal worldview.

Kernberg's conceptualization of narcissism is similar to that of the other psychoanalytic theorists previously discussed in a number of ways. Similar to Freud (1914) and Kohut (1966), Kernberg (1975) asserted that narcissism developed from experiences in early childhood, often social in nature. Additionally, he considered pathological narcissism to be a defense mechanism of sorts, used to mask feelings of inferiority and boost fragile self-esteem. His illustration of the ways the internal processes involved in narcissism are revealed through social interactions add another layer to the field of psychology's understanding of narcissism and help to better connect internal thoughts and feelings to external behaviors.

### Melanie Klein

Melanie Klein, an object relations theorist, also contributed to the literature on narcissism by describing the structures and processes that occur with its manifestation and how these elements are evinced in the relationships of these individuals. In particular, she addressed the development of a core facet of narcissism, envy of others, which contributes to the socially inappropriate behaviors often exhibited by narcissistic individuals. Again, the infant's relationship with mother sets the stage for typical or maladaptive psychological development, and the infant's propensity to idealize their mother comes in the form of viewing her breast as the giver of life (Klein, 1957). The infant's constant craving for nourishment, i.e., a ceaseless

token of their mother's affection, parallels the narcissistic adult's constant craving for attention and admiration. The infant envies the breast for providing them with something they could not provide themselves (Klein, 1957), just as the narcissistic adult envies those who possess what they do not. When the breast is not providing sustenance, the infant considers it to be vindictive and spiteful (Klein, 1957), just as the narcissistic adult degrades those around them who do not provide them the necessary gratification. In this sense, the breast is to the infant what social relationships are to the narcissistic adult: a tool that exists to meet the needs of the individual, and one that is quickly discarded and denigrated when no longer serving its purpose.

The development of the ego plays a role in Klein's conceptualization of narcissistic tendencies as well. She argued that in psychologically maladjusted individuals the ego and its internal representations of the self and objects are fractured, leading to the split between good objects and bad objects, and the idealization or depreciation of said objects, that was previously discussed (Klein, 1957). The ego's fragility makes it difficult for it to manage psychic tension, so it must revert back to the utilization of archaic defense mechanisms to reduce the presence of envy, as eventually the adulation of an object turns to depreciation (Klein, 1957). Klein's (1957) emphasis on envy as a core facet of narcissism appears to signify her agreement with the conceptualizations of other theorists (e.g., Kohut, Kernberg) in recognizing the role underlying feelings of inferiority play in the development of narcissism; for when a narcissistic individual feels inferior they envy in others what they lack in themselves, and use narcissistic behaviors to defend against these uncomfortable feelings. Again, these behaviors often cause more harm than good as narcissistic individuals often resort to depreciating and dominating other people to improve their own fragile self-esteem.

Klein's (1957) exploration of narcissism highlighted a prominent interpersonal behavior



that influences narcissistic individuals' interactions with other people. The vacillation between idealization and devaluation contributes to the conflict that often occurs in narcissistic individuals' relationships as these individuals strive to maintain their unstable sense of superiority. As this desire supersedes consideration of others' thoughts and feelings, as well as social acceptability, the relationships of narcissistic individuals are likely to be strained and emotionally unsatisfying.

### Further Exploration of Narcissism

While the psychoanalytic approach acknowledges the existence of several different forms of narcissism, overall, its understanding of pathological narcissism appears to be relatively monolithic. In its simple terms, narcissism is a protective phenomenon designed to defend against threats to the ego; it develops from unsatisfactory early childhood relationships and experiences and involves a contradictory amalgamation of aggrandizement and loathing of the self, and idealization and devaluation of others. This formulation appears to describe the concept of vulnerable narcissism but does not match with the concept of grandiose narcissism, an arguably "purer" form of narcissism better known to the general public. The general population's conceptualization of narcissism appears to have lost much of the nuances and complexity described by the psychoanalytic tradition, which is unsurprising given the level of discernment needed to fully understand narcissism and its intricacies. Both forms of narcissism are examples of Freud's (1914) concept of secondary narcissism and illustrate the point at which primary narcissism, or an adaptive focus on ego preservation, becomes problematic. The similarities and distinctions between these two forms of narcissism are worth consideration.

### Grandiose Narcissism

When the term narcissism is used in popular media or by the general population, it is

typically referring to the grandiose form. Grandiose narcissism is characterized by arrogance, an inflated sense of self-esteem, hostility, and a desire for control (Miller et al., 2011). While grandiosely narcissistic individuals often exhibit higher self-esteem than vulnerably narcissistic individuals or those who do not exhibit narcissism at all (Dickinson & Pincus, 2003), they are often unaware that their beliefs about themselves (and the world) are unrealistic and inaccurate. These characteristics are best examined when observing how a grandiosely narcissistic individual interacts with and relates to other people. Grandiosely narcissistic individuals possess high expectations for themselves and other people and are often ignorant of the unrealistic nature of these standards and how they negatively affect their relationships with other people (Dickinson & Pincus, 2003). Grandiose narcissism specifically has been negatively associated with emotional empathy when assessed using self-report measures (Urbonaviciute & Hepper, 2020), meaning that grandiosely narcissistic individuals report deficits in sharing in the emotional states of others. Additionally, grandiose narcissism was also found to be negatively related to emotional empathy when assessed using behavioral tasks (Urbonaviciute & Hepper, 2020), which is in direct contradiction with other research on the topic (e.g., Ritter et al., 2011).

Overall, the literature examining the relationship between grandiose narcissism and empathy appears to be rather mixed, which could be related to discrepancies between measures used or how the different variables are conceptualized. When considering how grandiose narcissism is conceptualized, it is conceivable that these individuals would not be motivated to consider the emotions of others, as they would not consider this to be necessary given their preoccupation with themselves. Additionally, it is likely that their actual capacity to do so would be impaired, given that the ability to empathize depends on complex social-cognitive skills that they likely would never have had the desire or opportunity to develop. As such, it appears that

grandiose narcissism is in contrast with vulnerable narcissism and, more broadly, narcissism as described by the psychoanalytic tradition. Compared to individuals exhibiting other forms of narcissism, grandiosely narcissistic individuals may be less influenced by social expectations (e.g., the importance of emotional connections to others) and their relationships with other people.

In interpersonal relationships, grandiosely narcissistic individuals tend to exhibit behaviors that are hostile, argumentative, and distrusting of other people (Dickinson & Pincus, 2003). Miller et al. (2012) found that according to Leary's (1957) interpersonal circumplex model, grandiosely narcissistic individuals more often exhibited behaviors associated with establishing dominance versus bonding with others. They were also found to exhibit interpersonal behaviors that were hostile, controlling, and lacking in warmth (Miller et al., 2012). Interestingly, these individuals also reported themselves to be friendly and outgoing, to the point of being overinvolved in the lives of others and exhibiting some dependent behaviors (Miller et al., 2012). This contradiction suggests that grandiosely narcissistic individuals may not be aware of how their behavior negatively impacts other people. It is also possible that the behaviors that these individuals consider to be friendly and outgoing are actually a form of exhibitionism, allowing these individuals to insert themselves into other people's lives in order to gain the praise and admiration that they desire.

### Vulnerable Narcissism

Similar to grandiose narcissism, vulnerable narcissism is also characterized by an inflated sense of superiority, but with one large caveat: a vulnerably narcissistic individual's unrealistically high self-esteem masks underlying feelings of inferiority and emotional instability (Miller et al., 2011). In this sense, vulnerable narcissism is more consistent with the theorizations

of narcissism previously discussed. Individuals exhibiting this type of narcissism tend to be more reserved, sensitive, and prone to feelings of guilt and humiliation than their more grandiose counterparts (Ronningstam, 2009). Vulnerably narcissistic individuals may also struggle to receive criticism appropriately and may dislike being the center of attention, but still desire praise and admiration from others (Ronningstam, 2009).

Like grandiose narcissism, vulnerable narcissism characteristics are best observed during interactions with other people. Unlike grandiosely narcissistic individuals, however, vulnerably narcissistic individuals experience fragile self-worth and tend to vacillate between feelings of superiority and inferiority (Dickinson & Pincus, 2003). Consequently, they experience much distress in interpersonal relationships due to their fear of rejection and poor reactions to perceived criticism, which can lead to avoidance of social situations altogether (Dickinson & Pincus, 2003). As such, in interpersonal relationships vulnerably narcissistic individuals often appear to be distant and disinterested in other people, while still desiring to remain in control (Dickinson & Pincus, 2003). Overall, vulnerable narcissism appears to be a constellation of behaviors that fluctuate rapidly and often contradict each other, which likely contributes to the distress experienced by these individuals as well as interpersonal relationships that are fraught with tension and wildly unpredictable.

Similar to grandiose narcissism, the interpersonal issues associated with vulnerable narcissism are interesting when observed using Leary's (1957) interpersonal circumplex model. Miller et al. (2012) found that vulnerable narcissism was also negatively associated with communion; however, there were no significant associations with agency. These findings show that while both grandiosely and vulnerably narcissistic individuals do not define themselves in terms of their relationships with other people, vulnerably narcissistic individuals also do not

pride themselves on their personal achievements. This difference between the two forms is likely related to the vulnerably narcissistic individual's more fragile self-esteem and self-concept, as they are likely to struggle more to identify their individual accomplishments and maintain a sense of pride and satisfaction when fluctuating so widely between feelings of superiority and guilt or shame. Interestingly, vulnerable narcissism was not strongly correlated with any specific interpersonal problem domain (Miller et al., 2012). This finding suggests that the problematic interpersonal behaviors exhibited by vulnerably narcissistic individuals may be more misunderstood and less visible or clearly defined than those exhibited by grandiosely narcissistic individuals (Miller et al., 2012). Grandiose narcissism seems to be a somewhat more monolithic experience than vulnerable narcissism, making it easier to determine a specific set of characteristics that compose the phenomenon.

The two forms of narcissism are similar in their development and possess some shared behaviors, but the basic essences of the forms appear to be different. Emotional instability and fragile self-esteem appear to be hallmarks of vulnerable narcissism, while the self-concept in grandiose narcissism appears to be at least somewhat more intact. These distinctions make attempts to conceptualize and study narcissism as a homogenous phenomenon unwise, yet provide thought-provoking nuances to the relationships between narcissism and other psychological concepts. Narcissism in general manifests most obviously within interpersonal interactions, and it is interesting to observe how the two forms influence an individual to behave and present themselves so differently. Indeed, understanding the relationships between narcissism and various interpersonal behaviors is instrumental in understanding the nature of narcissism itself.

## Interpersonal Correlates of Narcissism

Given the manifestation of narcissism commonly through interpersonal relationships, thorough understanding of the nature of narcissism cannot be achieved without examination of the specific social cognitions and behaviors impacted by narcissism. The behavioral patterns exhibited by narcissistic individuals appear to differ greatly compared to those shown by other individuals, and there appear to be variations in social behaviors like empathizing between the grandiose and vulnerable forms as well. Consideration of these social tendencies will likely greatly contribute to the scientific conceptualization of narcissism and its correlates. The interpersonal processes and behaviors discussed in the following sections are commonly on display in social interactions. Exploring how they are exhibited in narcissistic individuals will likely increase understanding of narcissism itself.

In particular, I am attempting to determine exactly how much of narcissism consists of interpersonal processes, rather than internal or other environmental components. Early theoretical conceptualizations of narcissism (e.g., Freud, 1914; Kernberg, 1975; Klein, 1957; Kohut, 1966) speculated that early social interactions, particularly with the mother or other primary caregiver, triggered the development of narcissistic personality characteristics that then began to influence an individual's internal representations of themselves, others, and the world in general. I am seeking to ascertain whether social processes continue to exist as a significant medium for the development and exhibition of the narcissistic experience in an individual, or whether the narcissistic individual's arrogance and grandiosity represent a shift towards a more self-focused internal world. The processes and behaviors discussed in the following sections commonly occur in social interactions and can significantly impact the quality

of an interpersonal relationship, resulting in either a stable, emotionally supportive relationship or interpersonal turmoil.

### Empathic Functioning

Empathy as a phenomenon has been difficult to conceptualize within the field of psychology, and multiple different definitions exist (Cuff et al., 2016). Empathy is often fused with other psychological concepts such as compassion or sympathy (e.g., Barnett & Mann, 2013), as there seems to be theoretical disagreement about whether empathy involves actually feeling what another person feels through consideration of their perspective (e.g., Albiero et al., 2009) or merely reacting emotionally to another person's emotions (e.g., Davis, 1983). There also seems to be some theoretical disagreement about whether empathy is a stable, traitlike characteristic consisting of the capability to empathize (e.g., Baron-Cohen & Wheelright, 2004), or if it is a behavior that depends on context and other situational factors (e.g., Hoffman, 2000). For example, Eklund et al. (2009) found that participants' empathy for a person in a story increased when participants had experienced similar circumstances to the hypothetical individual, illustrating one context-dependent factor that can influence empathy. Additionally, whether empathy can be considered primarily an emotional or cognitive phenomenon has been up for debate by theorists (Cuff et al., 2016), resulting in the creation of two distinct but intertwined constructs. Cognitive empathy, more aligned with perspective-taking, has been conceptualized as the ability to understand another person's mental state (Ritter et al., 2011). Emotional empathy, or empathic concern, has been conceptualized as the ability to recognize and respond to other people's emotional states (Ritter et al., 2011).

Some theorists argue that empathy is an automatic process that is activated when an individual is confronted with another person's emotions, and this definition has been supported

by some research demonstrating that empathy can occur without conscious effort (e.g., Morrison et al., 2004). However, other research demonstrates that empathy is not always automatic but involves conscious evaluation of the information being received and modification of emotional responses based on different situational factors (e.g., Lamm et al., 2007). Appraisal models of empathy assert that empathic responses are influenced by appraisal processes such as an individual's ability to relate to another person (de Vignemont & Singer, 2006). Similarly, the Perception-Action Model of empathy requires that an individual actively perceives and processes the mental state of another person before an empathic response is triggered, and this process is also influenced by factors such as an individual's ability to relate to the other person and propensity to attend to their mental state (Preston & de Waal, 2002). These models suggest that not only is empathy not a completely automatic process, but its activation is influenced by individual factors such as attention and interpersonal connection. Consequently, it is highly likely that individuals who exhibit personality characteristics that are not conducive to the care and consideration of other people, such as narcissism, would struggle to engage in empathic processes.

### Empathic Functioning in Narcissism

An individual's capacity to empathize is influenced by multiple dispositional and situational factors, including characteristics of the individual's personality. Ronningstam (2009) theorized that there are multiple characteristics that may determine how well narcissistic individuals (regardless of form) are capable of empathizing with others. According to theory, high level of focus on the self and an inability to manage one's emotions or sense of self-worth appropriately, especially when confronted with other people's opinions or impressions, likely contribute to poor empathic functioning in narcissistic individuals (Ronningstam, 2009). Lack of



motivation or desire to empathize, deficiencies in the superego (e.g., an inability to feel guilt or concern), and an impaired ability to distinguish between the self and other people are also theorized to be associated with empathy deficits in narcissistic individuals (Ronningstam, 2010). Additionally, narcissistic individuals have been found to have more difficulty recognizing the emotions of others based on facial expression when compared to non-narcissistic individuals, which may also negatively impact their ability to empathize (Marissen et al., 2012).

Ronningstam (2009) theorized that a narcissistic individual's inability to empathize may be less absolute and more situational, and could serve their underlying inclinations toward self-aggrandizement or avoidance of unpleasant emotions. According to theory, when not faced with the threat of narcissistic injury or a challenge to their inflated sense of self-esteem, a narcissistic individual may be capable of empathizing with another person's experiences and emotions (Ronningstam, 2009). These opportunities may afford a narcissistic individual a sense of superiority and a chance to express disdain when comparing their successes to another's failures, or fuel their arrogance when they use other people's successes to enhance their own self-concept (Ronningstam, 2009).

Following this theorization, it appears that empathy is only utilized by these individuals when it serves a purpose: to enhance their self-esteem or protect against ego threat. Indeed, Jonason et al. (2013) suggested that one possible explanation for the negative relationship between narcissism and empathy found in their study centered around a narcissistic individual's self-centeredness and desire for dominance. As empathy involves care and consideration given to another person, it is in direct contradiction with a narcissistic individual's focus on their own importance to the detriment of other people. On the other hand, Baskin-Sommers et al. (2014) theorized that narcissistic individuals avoid empathizing with others to avoid feeling the same

unpleasant emotions and becoming overwhelmed. As many narcissistic individuals, particularly those exhibiting characteristics of the vulnerable form, struggle with emotion dysregulation, allowing themselves to consider or actually feel the distressing emotions experienced by others may result in emotional overload. Consequently, the lack of empathy exhibited by narcissistic people may serve as a defense against psychological distress at times. This illustrates the emphasis narcissistic individuals place on themselves to the detriment of other people, as more socially acceptable reasons to empathize (e.g., to provide comfort to someone in distress) are not considered.

Cognitive empathy has been negatively associated with narcissism (Lee & Kang, 2020). Additionally, narcissism has also been associated with a greater desire to maintain control, which in turn negatively influences perspective-taking (Lee & Kang, 2020). These findings are consistent with current theory (e.g., Ronningstam, 2009) suggesting that the ability for narcissistic individuals to empathize is situational and dependent on opportunities to avoid narcissistic injury and strengthen feelings of superiority.

Emotional empathy is also negatively influenced by narcissism, although possibly not to the same extent that cognitive empathy is affected (Ritter et al., 2011). Notably, these narcissistic individuals did not seem to be aware of their impaired ability to emotionally empathize, as self-report measures of emotional empathy noted no impairments (Ritter et al., 2011). This lack of awareness could be attributed to a narcissistic individual's tendency to view themselves as competent in all domains. Additionally, this deficit may also provide a possible reason for narcissistic individuals' lack of meaningful relationships and inability or unwillingness to recognize how much of their behavior can be considered socially unacceptable. However, inconsistencies across results due to the different measurement methods used were found as well.

When Ritter et al. (2011) assessed emotional empathy using a behavioral task, deficits were noted. This discrepancy again illustrates narcissistic individuals' lack of awareness regarding their own emotional limitations and how their behavior affects other people. Given these social deficits, it would be interesting to explore the relationship between narcissism and the perpetration of inappropriate social behaviors, such as psychological abuse, that are exhibited to increase a person's sense of control and consequently their self-esteem.

Given the difficulties narcissistic individuals experience regarding understanding the thoughts and feelings of other people, it is no wonder that their interpersonal relationships are often strained. It is also probable that these deficits in social intelligence extend beyond an inability to understand the thoughts and emotions that are conveyed to them by others. In other words, not only do narcissistic individuals struggle to recognize the cognitions and feelings that are present, but they also appear to infer thoughts and feelings that are not present. These individuals may perceive from others the same hostility and ill intent they exhibit themselves, regardless of whether the intent to harm is actually present.

### Social Information Processing Deficits in Narcissism

Social information processing is an important process that describes how individuals experience interpersonal interactions and is used to explain many different social behaviors. Crick and Dodge's (1994) social information processing (SIP) model was initially created to explain the occurrence of aggressive behavior in children but has since been adapted for use in explaining adult behavior and phenomena other than aggression. Broadly speaking, the SIP model details how individuals interpret and respond to information received from other people in social interactions (Crick & Dodge, 1994). More specifically, the reformulated SIP model consists of six steps: receiving and encoding cues from others, interpreting these cues, goal

setting, identifying possible responses, choosing a response, and executing the chosen response (Crick & Dodge, 1994). Narcissism has previously been associated with aggression at the later stages of the SIP model, such as choosing an aggressive response (Calvete & Orue, 2012). Of particular interest to the scientific study of aggression is the role played by hostile attributional biases, or the tendency to interpret stimuli received from others as hostile, regardless of actual intent (Crick & Dodge, 1994). The concept of hostile attributional biases has been used to explain how and why aggression occurs, and there is a positive association between hostile attributional biases and aggressive behaviors (Thomas & Weston, 2020). More specifically, people who have the tendency to view others' behaviors as aggressive, regardless of actual intent, are likely to respond in kind with their own aggression due to deficits in social-cognitive skills like perspective-taking, communication, and conflict resolution.

Given the hostility often exhibited in interpersonal interactions by narcissistic individuals, it stands to reason that there would also be a relationship between narcissism and hostile attributional biases as well. In fact, Hansen-Brown and Freis (2021) found an association between hostile attributional biases and vulnerable narcissism; interestingly, no significant relationship between hostile attributional biases and grandiose narcissism was found. These findings may be attributable to the differences in self-esteem and self-concept found in grandiose narcissism versus vulnerable narcissism. As a vulnerably narcissistic individual's senses of self and self-worth may be more fragile and prone to fluctuation than those of a grandiosely narcissistic individual, the vulnerably narcissistic individual may be more sensitive to and critical of stimuli they believe threatens their self-esteem. Consequently, the hostility a vulnerably narcissistic individual often exhibits in social interactions may be a response to and defense against perceived aggression from others.

The frequency of aggressive behaviors exhibited by narcissistic individuals may vary according to the form of narcissism experienced. Kernis et al. (1989) found that individuals with high self-esteem that tended to fluctuate reported more hostility, while individuals with high self-esteem that did not fluctuate reported less hostility. These findings again seem to illustrate the possibility that vulnerably narcissistic individuals, with their unstable sense of self, exhibit more aggressive behaviors in social interactions, compared to grandiosely narcissistic individuals. Given the link between these behaviors and hostile attribution biases, it is also possible that vulnerably narcissistic individuals possess more of these biases as well.

In contrast, Bushman & Baumeister (1998) found that aggression did not vary by narcissistic subtype; narcissistic individuals in general (i.e., no differentiation between forms) reacted more aggressively than non-narcissistic individuals when receiving negative feedback. These findings reinforce the idea that when narcissistic individuals believe that their ego is being threatened (i.e., someone else is trying to devalue them) they are likely to react with aggression to protect their sense of self; however, in this instance this conclusion is applied to both the grandiose and vulnerable narcissism forms. These results also reinforce the connection between narcissism and hostile attributional biases, as a non-narcissistic individual is not likely to consider negative feedback to be as aggressive as a narcissistic individual might, given the narcissistic individual's tendency to view anything that challenges their distorted self-concept as a threat.

The ego instability in narcissism, particularly vulnerable narcissism, may be a large contributor to the development of hostile attributional biases and aggressive behaviors. In fact, Edwards and Bonds (2012) found that high levels of general narcissism predicted hostile attribution biases, as did having an unstable self-concept. Similarly, McCullough et al. (2003)

found that individuals who scored high in narcissistic traits also reported experiencing more affronts by others. They argued that narcissistic individuals' hypersensitivity to negative feedback may explain this phenomenon, as well as a willful distorting of events to enhance their own self-esteem or justify their problematic behaviors toward others (McCullough et al., 2003). Additionally, they believed that narcissistic individuals may actually experience more negative social interactions with others given their tendency to behave inappropriately, thus evoking negative responses from others (McCullough et al., 2003). Regardless of possible explanations, it appears that hostile attributional biases can be considered to play a large role in narcissistic individuals' cognitive schemata and social behavior.

Based on the research previously discussed, it appears that narcissistic individuals' relationships with other people are often rife with turbulence, frustration, and a lack of meaningful emotional connection. Given this conflict, it is easy to question what purpose social relationships serve for narcissistic individuals and how well the behaviors these individuals exhibit in their relationships meet these underlying needs. Additionally, much of the psychological distress a narcissistic individual experiences may be revealed through their interactions with other people, demonstrating the need for further examination of the roles social relationships play and the cognitive and behavioral patterns narcissistic individuals display.

#### Perpetration of Psychological Abuse by Narcissistic Individuals

The concept of "narcissistic abuse" has been widely discussed by members of the general public within the past few years. One need only visit the Internet and popular social media applications to find a vast array of written accounts of people's experiences with abuse in relationships with people they identify as 'narcissistic individuals', and guidance from mental health professionals and other individuals recommending ways to manage the distress these

experiences cause. Narcissistic abuse does not appear to be a unique subtype of abuse entirely, but rather a constellation of common behaviors that stem from and are influenced by a narcissistic individual's desire for superiority and control, as well as their fragile sense of self and maladaptive interpersonal style. However, research on the topic is exceedingly limited and the concept is not fully recognized among the psychological community (Howard, 2019).

Quite simply, any behavior that is considered abusive and is being perpetrated by someone who appears to be narcissistic (according to laypeople and/or mental health professionals) could be considered narcissistic abuse. However, narcissistic abuse appears to consist mostly of behaviors that are considered psychologically abusive, i.e., meant to damage another person's mental health and well-being. Behaviors that are considered psychological abuse include frequent criticism or insults, threats of any kind, isolation, humiliation, invalidation, excessive jealousy, and displays of dominance or control (Sackett & Saunders, 1999).

As previously discussed, a large segment of the interpersonal component of grandiose narcissism involves a desire for power and control over other people, which these individuals may often attempt to achieve through behaviors that are considered to be psychological abuse. While vulnerably narcissistic individuals may also exhibit domineering or controlling behavior in their relationships, their fragile sense of self and low self-esteem adds more instability and emotional lability to their interactions with other people. Ponti et al. (2020) found that both grandiose narcissism and vulnerable narcissism were associated with psychological abuse, although the natures of these relationships varied. Interestingly, grandiose narcissism was found to be directly related to psychological abuse, while vulnerable narcissism was indirectly related to psychological abuse through its relationship with jealousy (Ponti et al., 2020). This difference

in findings is intriguing when considering how grandiose narcissism and vulnerable narcissism diverge in their manifestations. Vulnerably narcissistic individuals' preoccupation with rejection likely contributes to more experiences with romantic jealousy when compared to their grandiosely narcissistic counterparts. Consequently, their perpetration of psychological abuse may even serve as a maladaptive defense against rejection, occurring when these individuals feel that their self-esteem and their relationships are being threatened.

Gender differences have been found in the perpetration of abuse and may influence the relationship between narcissism and psychological abuse. Some research has found that men are more likely to perpetrate abuse against their romantic partners (Krug et al., 2002), while other research has found that women perpetrate abuse more often than men (Cho, 2012) or that there are virtually no gender differences in abuse perpetration (Fiebert, 2014). With regard to psychological abuse specifically, some research has found that men are more likely to be perpetrators than women (Moreno-Manso et al., 2014), while other research has found the opposite to be true (Hines & Saudino, 2003). Interestingly, Green et al. (2020) found gender differences in the relationships between narcissism and different forms of intimate partner violence. For women, vulnerable narcissism predicted the perpetration of physical, sexual, and psychological abuse (Green et al., 2020). In contrast, for men vulnerable narcissism only predicted the perpetration of physical and sexual abuse, while grandiose narcissism predicted the perpetration of psychological abuse (Green et al., 2020). In contrast, Gewirtz-Meydan and Finzi-Dottan (2018) found that both vulnerable narcissism and grandiose narcissism predicted perpetration of psychological abuse for both men and women. Similarly, Erdem and Sahin (2017) found that narcissism was associated with more positive attitudes toward psychological violence for men and women. These mixed findings may be attributed to a variety of possible



reasons, such as gender differences in how narcissism manifests or how psychological abuse is conceptualized and measured. Overall, these discrepancies again emphasize the importance of further research to better understand the nature of narcissism and associated behaviors.

### Measurement Issues

The assessment of narcissism and other psychological constructs has become a topic of debate. There is evidence to suggest that research findings can vary widely depending on the definition of the constructs and the measurement methods used (e.g., self-report questionnaire, direct observation, behavioral task; e.g., Ritter et al., 2011). Many of these discrepancies occur because cognitive processes that are associated with narcissism (e.g., lack of desire to understand the perspectives of others) influence participant responding, especially regarding the use of self-report questionnaires (Urbonaviciute & Hepper, 2020).

One of the most commonly used self-report measures of narcissism in psychological research is the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979). The NPI, while widely used, is limited in its measurement of narcissism as it only assesses the presence of grandiosely narcissistic characteristics (Raskin & Terry, 1988). Another measure of narcissism, the Hypersensitive Narcissism Scale (HSNS; Hendin & Cheek, 1997), assesses the presence of vulnerably narcissistic traits while failing to account for grandiosely narcissistic characteristics. A less commonly used measure of narcissism, the Five-Factor Narcissism Inventory (FFNI; Glover et al., 2012), measures both grandiosely and vulnerably narcissistic characteristics but may not always be feasible to use in research given its length, a whopping 148 items. In contrast, the Pathological Narcissism Inventory (Pincus et al., 2009) measures both grandiose and vulnerable narcissism with significantly fewer items compared to the FFNI, and is quickly becoming popular in the narcissism literature.

In particular, social desirability bias may play a role in the possible underreporting of socially undesirable behaviors stemming from narcissism. Narcissism has been associated with socially desirable responding, possibly due to narcissistic individuals' desire to enhance their self-worth by portraying themselves as socially adept (Kowalski et al., 2018). These inconsistencies confound the already intricate complexities of this area of focus and require further examination to better understand the nature of narcissism and its correlates.

The confusion surrounding the conceptualization of empathy makes measuring the concept difficult. Many self-report measures of empathy assess different definitions of empathy (Neumann et al., 2015). For instance, one definition of empathy involves being aware of the mental states of others, while another definition involves actually feeling what someone else feels (Batson, 2009). The definition of empathy as assessed by the Balanced Emotional Empathy Scale (BEES; Mehrabian, 1996) involves attending to and experiencing another person's emotional state, while the definition of empathy as measured by the Empathy Quotient (EQ; Baron-Cohen & Wheelwright, 2004) involves identifying the thoughts and feelings of another individual and reacting with a suitable emotional response. The level of cognitive or emotional involvement assessed by empathy measures varies according to how empathy is conceptualized, which can add another layer of disagreement between measures. Some measures, such as the Interpersonal Reactivity Index (IRI; Davis, 1980), include both cognitive and affective empathy components, but there are certainly many measures that only focus on one or the other. Consequently, self-report measures of empathy may often lack concurrent validity and even be subject to response bias such as social desirability given that the ability to empathize is considered a desirable trait, making it more likely to be overreported (Lovett & Sheffield, 2007).

When using self-report measures such as the EQ and IRI to assess empathy, vulnerably narcissistic individuals indicate deficits in both cognitive and emotional empathy (Fan et al., 2011; March, 2019). Unfortunately, studies using behavioral tasks to assess empathy and then examining the relationship between empathy and vulnerable narcissism appear to be rather limited, making it difficult to assess the relationship between the two methods (Urbonaviciute & Hepper, 2020).

Ritter et al.'s (2011) use of both behavioral tasks and self-report measures to assess both cognitive and affective empathy in individuals diagnosed with Narcissistic Personality Disorder highlighted the discrepancies in empathy scores associated with different measurement approaches and the impact of underlying cognitive factors such as motivation. When their assessment of perspective-taking in narcissistic participants included self-report measures that examined their motivation to perspective-take (i.e., "I try to..."), participants' perspective-taking abilities were impaired. However, when they assessed perspective-taking using behavioral tasks that did not take motivation to perspective-take into account, no such impairment was noted (Ritter et al., 2011). Specifically, Ritter et al. (2011) utilized two different behavioral tasks, the Multifaceted Empathy Test (MET; Dziobek et al., 2008) and the Movie for the Assessment of Social Cognition (MASC; Dziobek et al., 2006). The MET is a task in which an individual is shown pictures of people in emotionally salient situations and must identify the emotion displayed and rate the intensity of their own emotional response (Dziobek et al., 2008), while the MASC is a task in which an individual is shown a video of staged interpersonal interactions and must identify the social-cognitive behaviors and processes (e.g., false belief) that occurred (Dziobek et al., 2006). Both tasks are more an assessment of the actual ability to empathize accurately rather than the cognitive processes that lead up to the decision whether or not to

empathize. This finding suggests that narcissistic individuals may be capable of understanding the perspectives of other people but do not care to actually do so, which makes sense given the intense focus on the self at the expense of other people.

Consequently, one may conclude that research on the impact narcissism has on cognitive empathy has found mixed results in part due to the influence motivation to perspective-take has on actual perspective-taking. Additionally, response bias may further challenge the validity of self-report measures of narcissism and empathy, as can the qualities of the specific self-report measures of empathy and narcissism used as well (Urbonaviciute & Hepper, 2020). Again, these discrepancies could be indicative of inconsistencies across measurement or conceptualization of variables, such as the specific definitions of narcissism and empathy used, or they could be influenced by factors associated with the experience of narcissism, either through conceptualization or measurement (e.g., lack of motivation to empathize).

The “Reading the Mind in the Eyes” Test-Revised Version (RMET; Baron-Cohen et al., 1997; Baron-Cohen et al., 2001) is another behavioral task often used to assess cognitive and emotional empathy. The RMET is similar to the MET and MASC in that it requires an individual to identify emotions displayed by other people, a facet of cognitive empathy; additionally, emotional empathy can be assessed by asking participants to rate the level of emotional arousal they experience when they look at these pictures. Unlike the MASC, the RMET is focused more on empathy specifically rather than social cognition broadly. Additionally, the RMET has also been positively correlated with cognitive empathy (Grove et al., 2014).

Given these inconsistencies, in my study I will measure empathy using both a self-report questionnaire and a behavioral task. This approach will allow us to compensate for differences between measures more so than either method alone, likely providing more accurate results.

Additionally, it may be possible to use discrepancies between methods to better understand the nature of narcissism and its relationship with empathy. For example, self-report measures differ from behavioral tasks in that they rely on introspection and attending to one's own internal states and can be influenced by how an individual chooses to present themselves (Bornstein, 2009). In contrast, behavioral tasks involve focusing on an external object rather than an internal representation and are less influenced by factors such as social desirability (Bornstein, 2009). The utilization of implicit measures such as behavioral tasks in addition to self-report measures has been used to assess incremental validity in psychological assessment, with research demonstrating the efficacy of the two methods combined (Blasczyk-Schiep et al., 2011). As such, I believe that using two different methods to assess empathy will allow for a more holistic understanding of both the concept in general and the underlying processes that may influence its assessment.

### The Present Study

The current study will use the previously discussed interpersonal correlates of narcissism (interpersonal problems, envy/jealousy, cognitive and affective empathy, and hostile attributional biases) to attempt to predict both grandiose and vulnerable narcissism. It has already been well established that these social processes and behaviors are influenced by narcissistic personality characteristics. I am seeking to determine if the combinations of these behaviors and processes are able to significantly explain the scores on measures of grandiose and vulnerable narcissism, and how these explanations may differ according to the form of narcissism. In order to account for the difficulties associated with monomethod assessment previously discussed, I am not solely relying on self-report measures for data collection. In particular, I am using a behavioral task to assess Theory of Mind, a developmental precursor to empathy. Theory of Mind involves being

able to recognize internal states and processes like thoughts, feelings, motives, and desires in the self and other people (Premack & Woodruff, 1978). Deficits in Theory of Mind have been associated with impaired social functioning (Peterson et al., 2009). The constructs I am assessing, measures I am utilizing, and measurement descriptions are listed in Table 1.

Table 1

*Measures Used*

Construct	Measure	Measure Description
Grandiose/Vulnerable Narcissism	Pathological Narcissism Inventory (PNI)	Self-report questionnaire
Interpersonal Problems	Inventory of Interpersonal Problems (IIP)	Self-report questionnaire
Envy/Jealousy	Inventory of Interpersonal Problems (IIP)	Self-report questionnaire
Cognitive/Affective Empathy	Interpersonal Reactivity Index (IRI)	Self-report questionnaire
Theory of Mind	“Reading the Mind in the Eyes” Test-Revised Version (RMET)	Behavioral task
Hostile Attributional Biases	Social Information Processing–Attribution and Emotional Response Questionnaire (SIP-AEQ)	Vignette-based measure
Psychological Abuse	Multidimensional Measure of Emotional Abuse (MMEA)	Self-report questionnaire

I hypothesize that the following variables will be able to significantly predict scores on my measure of grandiose narcissism: interpersonal problems associated with being domineering; impaired cognitive and affective empathy; and hostile attributional biases. In contrast, I hypothesize that the following variables will be able to significantly predict scores on my measure of vulnerable narcissism: interpersonal problems associated with being socially inhibited; envy/jealousy of others; impaired cognitive and affective empathy; and hostile attributional biases. The processes and behaviors I am associating with the grandiose narcissism

form and vulnerable narcissism form have been chosen based on my literature review describing how each form of narcissism influences each process or behavior. Because vulnerable narcissism and grandiose narcissism share many underlying features, the constellations of behaviors chosen to represent them are similar. However, I am interested in exploring exactly how much unique variance in each form of narcissism is accounted for by each variable, and I expect the impact of each interpersonal correlate to differ for each form of narcissism.

I am also interested in examining the impact the previously discussed interpersonal correlates, as well as narcissism, have on perpetration of psychological abuse. Given how deficits in the social behaviors discussed are not conducive to stable and supportive interpersonal relationships, I expect that these variables will be able to accurately account for much of the perpetration of psychological abuse. Similarly, given how many characteristics of narcissism are also not conducive to emotionally healthy relationships, I expect that the addition of narcissism to my model will increase my ability to significantly predict the perpetration of psychological abuse.

## CHAPTER 2

### METHOD

#### Participants

The initial sample consisted of 180 adults located in the United States. Eleven participants were excluded due to invalid responses suggestive of random responding. The final sample included 169 participants (women = 50.9%; men = 49.1%), age range 25-82 ( $M = 34.49$ ,  $SD = 9.17$ ). Ethnic background, sexual orientation, gender identity, religion, relationship status, employment status, educational attainment, student status, and parental status were also assessed, along with parental characteristics, such as family of origin socioeconomic status, mother education level, and father education level (see Table 2).

#### Procedure

Participants were recruited via the website Prolific and received monetary compensation for their participation. All measures were completed online via Qualtrics.

#### Measures

##### Pathological Narcissism Inventory (PNI; Pincus et al., 2009)

The PNI is a 52-item self-report measure that assesses both grandiose narcissism and vulnerable narcissism. The PNI was developed after an extensive review of the pathological narcissism literature and case presentations given by therapists working with clients exhibiting signs of narcissistic pathology (Pincus et al., 2009). 131 items were generated and rated for content quality, with those of lower quality being removed (Pincus et al., 2009). The remaining 105 items underwent multiple principal component analyses that determined seven dimensions consisting of 52 items total. Subscales assessing vulnerable narcissism include Devaluing, Entitlement Rage, Hiding the Self, and Contingent Self-Esteem, while subscales assessing



grandiose narcissism include Grandiose Fantasy, Exploitativeness, and Self-Sacrificing Self-Enhancement (Pincus et al., 2009; Wright et al., 2010). Individuals will be asked to rate how much a statement applies to them on a scale from 1 to 6 (*1=Not at all like me; 2=Moderately not like me; 3=Slightly not like me; 4=Slightly like me; 5=Moderately like me; 6=Very much like me*) and scores within each subscale are summed to create the subscale total score (Pincus et al., 2009), while scores within each subscale are averaged to make comparisons across subscales. Additionally, vulnerable narcissism subscales can be averaged to form the vulnerable narcissism score, while grandiose narcissism subscales can be averaged to form the grandiose narcissism score (Maxwell et al., 2011). Example items include “I often fantasize about being admired and respected,” “My self-esteem fluctuates a lot,” and “I sometimes feel ashamed about my expectations of others when they disappoint me” (Pincus et al., 2009). Cronbach’s alphas for each subscale and PNI total score have ranged from .75 to .95 and correlations between subscales have ranged from .10 to .62 (Pincus et al., 2009). The vulnerable narcissism score and grandiose narcissism score have been positively correlated,  $r = .16, p < .05$  (Tritt et al., 2010). The PNI has been correlated positively with a measure of aggression and negatively with a measure of empathy,  $r = .36$  and  $-.14$ , respectively (Pincus et al., 2009). The PNI shares a weak correlation with the Narcissistic Personality Inventory ( $r = .13$ ; Raskin & Hall, 1979) and is more strongly correlated with the Hypersensitive Narcissism Scale ( $r = .62$ ; Hendin & Cheek, 1997) and the Narcissism-Hypersensitivity Scale ( $r = .51$ ; Pincus et al., 2009; Serkownek, 1975).

Inventory of Interpersonal Problems (IIP-32; Horowitz et al., 2003; Alden, Wiggins, & Pincus, 1990)

The IIP is a self-report measure that assesses specific issues that occur within individuals’ personal relationships and will be used to represent the interpersonal issues narcissistic individuals experience in their social relationships in general, stemming from their personality

pathology. The initial 127 items were obtained from video recordings of psychotherapy clients discussing interpersonal issues they were experiencing (Horowitz, 1979) and later factor analyses determined six subscales (*Assertive, Sociable, Intimate, Submissive, Responsible, Controlling*; Horowitz et al., 1988). Principal components analyses determined two dimensions accounting for 73% of the variance, hostility-friendliness and dominance-submissiveness (Horowitz et al., 1988). Later circumplex analyses determined eight subscales that accounted for 64.14% of the variance, with the final questionnaire consisting of 64 items (Alden et al., 1990). For my study I will be using a short form consisting of 32 items. Participants will rate on a scale from 0 to 4 (0 = *not at all*; 1 = *a little bit*; 2 = *moderately*; 3 = *quite a bit*; 4 = *extremely*) how much they are distressed by specific problems occurring within their relationships. The IIP-32 contains 8 subscales consisting of 4 items each. The subscales, example items, and Cronbach's alphas are: Overly Accommodating (e.g., 'I let other people take advantage of me too much';  $\alpha = .82$ ), Self-Sacrificing (e.g., 'I am overly generous to other people';  $\alpha = .76$ ), Intrusive = (e.g., 'I want to be noticed too much';  $\alpha = .72$ ), Domineering (e.g., 'I am too aggressive toward other people';  $\alpha = .77$ ), Vindictive (e.g., 'It is hard for me to really care about other people's problems;  $\alpha = .80$ ), Cold (e.g., 'It is hard for me to feel close to other people';  $\alpha = .81$ ), Socially Inhibited (e.g., "It is hard for me to introduce myself to new people;  $\alpha = .85$ ), and Nonassertive (e.g., 'It is hard for me to be firm when I need to be;  $\alpha = .85$ ; Alden et al., 1990). Seven out of eight of the subscales shared their highest negative correlation with the opposite subscale of the revised Interpersonal Adjective Scales (Wiggins et al., 1998), demonstrating a solid circumplex structure and discriminant validity (Alden et al., 1990).

Additionally, eight items from the original 127-item IIP (Horowitz, 1979) will be used to create an Envy/Jealousy scale that will be used as a separate predictor of vulnerable narcissism.

Reasoning for the creation and implementation of this scale stems from theoretical consideration of envy as a prominent influence on and behavior representative of narcissism (e.g., Klein, 1957). Example items for the scale include “I am too envious and jealous of other people” and “It is hard for me to feel good about another person's happiness”.

#### Interpersonal Reactivity Index (IRI; Davis, 1980)

The IRI is a 28-item self-report measure that assesses both cognitive empathy and emotional empathy. Over 50 items composed the initial item pool, developed for the IRI or adapted from other measures of empathy (Davis, 1980). Factor analysis determined four factors (Perspective Taking, Fantasy, Empathic Concern, Personal Distress) and a 45-item questionnaire was then constructed (Davis, 1980). A second factor analysis determined 28 items that loaded most heavily on the four identified factors to create the final questionnaire, with the factor structure confirmed using a participant sample of undergraduate college students (Davis, 1980). For this study I will be using the Perspective Taking subscale to measure cognitive empathy and the Empathic Concern subscale to assess emotional empathy. The Perspective Taking subscale has been moderately correlated with the Hogan Empathy Scale, a measure of cognitive empathy (Hogan, 1969; Davis, 1983). Additionally, the Empathic Concern subscale has been strongly correlated with the Questionnaire Measure of Emotional Empathy (Mehrabian & Epstein, 1972; Davis, 1983). On the IRI, individuals rate on a scale from 0 (*Does not describe me well*) to 4 (*Describes me very well*) how well a statement assessing their ability and motivation to understand the perspectives and feelings of others applies to them. Example items include “I try to look at everybody's side of a disagreement before I make a decision” and “I often have tender, concerned feelings for people less fortunate than me.” Cronbach’s alphas for the two subscales ranged from .70 to .78, while the two subscales share a moderate intercorrelation,  $r = .33$  for men

and  $r = .30$  for women (Davis, 1980). Additionally, I will also utilize the Fantasy subscale in my study, as I believe that the concept of imaging oneself in fictional situations is similar to both cognitive and affective empathy. An example item of the Fantasy subscale is “After seeing a play or movie, I have felt as though I were one of the characters” and internal consistency for the subscale is good,  $r = .78$  for men and  $r = .79$  for women (Davis, 1980).

“Reading the Mind in the Eyes” Test-Revised Version (RMET; Baron-Cohen et al., 1997; Baron-Cohen et al., 2001)

The revised RMET is a behavioral task that assesses Theory of Mind (ToM), or the ability to recognize and understand the thoughts and feelings of other people. Given ToM’s implication in the utilization of empathy, the revised RMET will be used in an attempt to offset the inconsistencies in findings associated with mixed-method approaches to the measurement of empathy (e.g., Ritter et al., 2011; Urbonaviciute & Hepper, 2020). The revised RMET can be administered online and consists of 36 pictures of sets of eyes portraying a variety of emotions; participants must choose the correct emotion being portrayed (e.g., *panicked*, *upset*, *worried*) from a set of four words. Target words for each picture were generated by two researchers and selected by five out of eight independent raters for validation (Baron-Cohen et al., 2001). Target words then needed to be selected by 50% of the initial participant pool, while no more than 25% of this pool could select any one of the other words (Baron-Cohen et al., 2001). The participant pool consisted of adults either from the community or recruited from a university. Test-retest reliability for the revised RMET has been good (reliability = .83; Vellante et al., 2013), while internal consistency has been acceptable ( $\alpha = .57$ ; Dehning et al., 2012). The RMET has been positively correlated with the Faux Pas Test (Stone et al., 1998), another measure of ToM (Ferguson & Austin, 2010). For this study I used a short form of the RMET, consisting of 18

pictures. This short form has shown good internal consistency in literature ( $\alpha > .70$ ; Burke et al., 2020).

Social Information Processing–Attribution and Emotional Response Questionnaire (SIP-AEQ; Coccaro et al., 2009)

The SIP-AEQ is based off of Crick and Dodge's (1994) model of social information processing and assesses emotional and attributional responses made when confronted by a negative event with unclear intent. The measure consists of ten vignettes describing scenarios in which an individual experiences either an act of relational aggression or direct aggression perpetrated by another individual (Coccaro et al., 2009). Vignettes were created and revised based on feedback from focus groups consisting of adults from the community and were then reviewed and revised again by researchers specializing in social information processing (Coccaro et al., 2009). Each vignette is followed by a set of four questions in which a participant rates on a scale from 0 to 3 ( $0 = \text{Not at all likely}$ ;  $1 = \text{Unlikely}$ ;  $2 = \text{Likely}$ ;  $3 = \text{Very likely}$ ) the likelihood the aggressive individual possessed indirect hostile intent, direct hostile intent, instrumental non-hostile intent, and neutral or benign intent (Coccaro et al., 2009). This set of questions is followed by two questions assessing whether participants would experience an unpleasant emotional response if they were the victim in the vignettes (Coccaro et al., 2009). An example vignette is as follows: "You make plans with one of your friends to go on a short trip for the weekend. You're very excited about these plans and have been looking forward to the trip. However, at the last minute, your friend says that he (or she) no longer wants to go on the trip and has made plans with another friend for the weekend (Coccaro et al., 2009)." Cronbach's alphas for each subscale are as follows: Hostile Attribution  $\alpha = .82$ , Instrumental Attribution  $\alpha = .57$ , Benign Attribution  $\alpha = .66$ , Negative Emotional Response  $\alpha = .84$  (Coccaro et al., 2009). Given my focus on interpersonal facets of narcissism, for my study I will only utilize the five

vignettes describing instances of relational aggression as they appear to be most representative of the relational difficulties narcissistic individuals are likely to experience. Additionally, for my study the two items assessing direct hostile intent and indirect hostile intent will be summed to create a single hostile attribution score. The hostile attribution score has been positively correlated with other measures of aggression and hostility (Coccaro et al., 2009).

#### Multidimensional Measure of Emotional Abuse (MMEA; Murphy & Hoover, 1999)

The MMEA is a 28-item self-report measure that assesses the frequency of psychological abuse occurring within a current or past romantic relationship. MMEA items were chosen through a review of the literature and other sources pertaining to psychological abuse, which also determined four domains of psychological abuse (*Denigration, Dominance/Isolation, Hostile Withdrawal, and Restrictive Engulfment*) that were confirmed using a participant sample of undergraduate college students and later became MMEA subscales. The subscales share moderate to high intercorrelations (Murphy et al., 1999) and the MMEA has been moderately correlated with the Psychological Aggression subscale of the Conflict Tactics Scales—Second Version (Ro & Lawrence, 2007; Straus et al., 1996). Each MMEA item assesses whether an individual has perpetrated that behavior against their partner or been victimized with that behavior by their partner. Individuals rate the frequency at which each behavior occurs on a scale from 0 to 7 (0= *never happened*; 1=*once*; 2=*twice*; 3=*3-5 times*; 4=*6-10 times*; 5=*11-20 times*; 6= *More than 20 times*; 7=*Never in the past six months, but it has happened before*) and scores within each subscale are summed to create the subscale total score, which can then be summed to create the MMEA total score. Example items include “Acted cold or distant when angry,” “Belittle the other person in front of other people,” and “Called the other person worthless.”

Cronbach's alphas for each subscale score and MMEA total score have ranged from .84 to .94 (Shorey et al., 2012).

## Data Analysis Plan

### Descriptive Analyses

Participants' responses were downloaded from Qualtrics into SPSS Statistics software and demographic information was coded. The assumptions of normality, linearity, and homoscedasticity were checked and corrections (e.g., winsorization, Z scores, data transformation) were made if these assumptions were violated. A G\*Power analysis to determine sample size indicated that to detect a medium effect size I needed 160 participants. I controlled for any demographic variables that show associations with my variables of interest in my analyses. I expected that two of my measures, the IRI and RMET, would be significantly correlated given that they measure similar constructs. As such, I was not particularly concerned about limiting multicollinearity in that regard but were interested in exploring the unique variance that each measure accounted for in my models.

### Hypotheses-Testing Analyses

Hypothesis 1: The following variables will significantly explain unique variance on my measure of grandiose narcissism: interpersonal problems associated with being domineering; impaired cognitive and affective empathy as measured by lower than average scores on the RMET and IRI; and hostile attributional biases. I will test this hypothesis using a multiple regression analysis in which the previously discussed variables will be entered into the model in one block as predictors, with grandiose narcissism as my outcome variable. My hypothesis will be supported if each predictor has a significance level of  $p < .05$ .

Hypothesis 2: The following variables will significantly explain unique variance on my measure of vulnerable narcissism: interpersonal problems associated with being socially inhibited; envy/jealousy of others; impaired cognitive and affective empathy as measured by lower than average scores on the RMET and IRI; and hostile attributional biases. I will test this hypothesis using a multiple regression analysis in which the previously discussed variables will be entered into the model in one block as predictors, with vulnerable narcissism as my outcome variable. My hypothesis will be supported if each predictor has a significance level of  $p < .05$ .

Hypothesis 3: I hypothesize that grandiose narcissism will significantly explain unique variance on my measure of psychological abuse perpetration over and above the predictor variables discussed in Hypothesis 1 (interpersonal problems associated with being domineering; impaired cognitive and affective empathy; and hostile attributional biases). I will test this hypothesis using a hierarchical regression analysis in which the previously discussed variables will be entered into the regression model in Block 1, while grandiose narcissism will be entered into Block 2. Psychological abuse perpetration will be my outcome variable and my hypothesis will be supported if grandiose narcissism has a significance level of  $p < .05$ .

Hypothesis 4: I hypothesize that vulnerable narcissism will significantly explain unique variance on my measure of psychological abuse perpetration over and above the predictor variables discussed in Hypothesis 2 (interpersonal problems associated with being socially inhibited; envy/jealousy of others; impaired cognitive and affective empathy; and hostile attributional biases). I will test this hypothesis using a hierarchical regression analysis in which the previously discussed variables will be entered into the regression model in Block 1, while vulnerable narcissism will be entered into Block 2. Psychological abuse perpetration will be my



outcome variable and my hypothesis will be supported if vulnerable narcissism has a significance level of  $p < .05$ .

Hypothesis 5: I hypothesize that grandiose narcissism will significantly explain unique variance on my measure of psychological abuse victimization over and above the predictor variables discussed in Hypothesis 1 (interpersonal problems associated with being domineering; impaired cognitive and affective empathy; and hostile attributional biases), but will have a negative association with victimization. I will test this hypothesis using a hierarchical regression analysis in which the previously discussed variables will be entered into the regression model in Block 1, while grandiose narcissism will be entered into Block 2. Psychological abuse victimization will be my outcome variable and my hypothesis will be supported if grandiose narcissism has a significance level of  $p < .05$  and a negative regression coefficient.

Hypothesis 6: I hypothesize that vulnerable narcissism will significantly explain unique variance on my measure of psychological abuse victimization over and above the predictor variables discussed in Hypothesis 2 (interpersonal problems associated with being socially inhibited; envy/jealousy of others; impaired cognitive and affective empathy; and hostile attributional biases), but will have a negative association with victimization. I will test this hypothesis using a hierarchical regression analysis in which the previously discussed variables will be entered into the regression model in Block 1, while vulnerable narcissism will be entered into Block 2. Psychological abuse victimization will be my outcome variable and my hypothesis will be supported if vulnerable narcissism has a significance level of  $p < .05$  and a negative regression coefficient.

#### Exploratory Analyses

Additional analyses may explore the influence of demographic factors such as age or

gender on the relationship between hypothesis-tested variables. Demographic variables may be analyzed as moderators of the relationships between variables of interest, and group differences in these variables will be analyzed if significant correlations between demographic variables and hypothesis-tested variables are found. Additionally, alternate hypotheses may be developed and different statistical analyses may be run given possible nonlinearity of data.

## CHAPTER 3

### RESULTS

#### Preliminary Analyses

Participants' responses were entered into SPSS Statistics software and demographic information was coded. I visually examined the data to check for outliers, missing data, or possible data entry errors. George and Mallery's (2010) criteria were used when assessing skewness, and scores between -2 and +2 were considered normal. Similarly, Gravetter and Wallnau's (2014) criteria were used when assessing kurtosis, and scores between -2 and +2 were considered normal as well. Psychological abuse perpetration initially showed excessive positive skewness (2.29). Domineering interpersonal problems, psychological abuse perpetration, and psychological abuse victimization initially showed excessive positive kurtosis (3.69 - 6.96). Outliers were winsorized if they were equal or greater than three standard deviations below or above the mean, changing them to the lowest or highest score that did not exceed the cutoff point. Four extreme scores on the Domineering subscale (2.75, 2.75, 2.75, 3.50), three scores on the Envy subscale, (2.88, 2.88, 2.88), one score on the Empathic Concern subscale (.86), one score on the RMET (4.00), four scores on psychological abuse perpetration (79.00, 83.00, 112.00, 118.00), and four scores on psychological abuse victimization (119.00, 120.00, 125.00, 141.00) were winsorized. Following winsorization all scores fell within acceptable ranges of skewness and kurtosis, as shown in Table 3.

#### Univariate Descriptives

Table 3 illustrates the descriptive characteristics of the following variables of interest: grandiose narcissism and vulnerable narcissism; average IIP scores on the domineering and socially inhibited scales, as well as the envy scale that was created for this study; average IRI

scores on the perspective taking (cognitive empathy) subscale, empathic concern (affective empathy) subscale, and fantasy (cognitive empathy and affective empathy) subscale; RMET mean score; SIP's hostile attribution bias score; and psychological abuse perpetration and victimization.

### Bivariate Descriptives

Sex differences in variables of interest were examined using independent-samples *t*-tests, as seen in Table 8. Sex differences in grandiose narcissism were found,  $t(167) = 5.07, p < .001$ , with men ( $M = 4.01, SD = .80$ ) scoring significantly higher than women ( $M = 3.40, SD = .76$ ). Men also scored significantly higher in hostile attributional biases  $t(151.65) = 3.23, p = .002$  ( $M = 13.47, SD = 6.65$ ) and psychological abuse perpetration  $t(151.85) = 2.17, p = .031$  ( $M = 18.84, SD = 19.47$ ) compared to women, ( $M = 10.55, SD = 4.97$  and  $M = 13.08, SD = 14.58$ , respectively). Sex differences were also found regarding social inhibition,  $t(167) = -2.67, p = .008$ , with women ( $M = 1.79, SD = 1.24$ ) scoring significantly higher than men ( $M = 1.30, SD = 1.17$ ). Women also scored higher on the RMET  $t(148.12) = -6.29, p < .001$  ( $M = 13.74, SD = 2.03$ ) compared to men ( $M = 11.35, SD = 2.84$ ).

Gender differences in variables of interest were examined using one-way ANOVAs, as seen in Table 11. Differences were found in regard to grandiose narcissism,  $F(2, 159) = 10.59, p < .001$ , with cisgender men differing significantly ( $M = 4.03, SD = .78$ ) from cisgender women ( $M = 3.51, SD = .76$ ) and transgender individuals or those who did not identify with the gender binary ( $M = 3.36, SD = .89$ ). Men also scored significantly higher on hostile attributional biases, Welch's  $F(2, 83.53) = 6.41, p = .003$  ( $M = 13.58, SD = 6.58$ ) compared to cisgender women ( $M = 9.95, SD = 5.08$ ). Transgender individuals or those who did not identify with the gender binary scored significantly higher on social inhibition,  $F(2, 159) = 9.64, p < .001$  ( $M = 2.29, SD = 1.33$ )

compared to cisgender men ( $M = 1.17, SD = 1.09$ ) and cisgender women ( $M = 1.57, SD = 1.18$ ). Transgender individuals or those who did not identify with the gender binary scored significantly higher on envy,  $F(2, 159) = 3.50, p = .033$  ( $M = 1.02, SD = .60$ ) compared to cisgender men ( $M = .69, SD = .63$ ), but not compared to cisgender women ( $M = .72, SD = .53$ ). Cisgender women scored significantly higher on the RMET, Welch's  $F(2, 72.55) = 19.04, p < .001$  ( $M = 13.97, SD = 1.78$ ) compared to cisgender men ( $M = 11.48, SD = 2.92$ ) and transgender individuals or those who did not identify with the gender binary ( $M = 12.37, SD = 2.79$ ).

Differences regarding variables of interest and participants' sexual orientation were also examined using independent-samples  $t$ -tests, as seen in Table 9. Differences in vulnerable narcissism were found,  $t(166) = 2.62, p = .010$ , with individuals who did not identify as heterosexual ( $M = 3.55, SD = .69$ ) scoring significantly higher than individuals who did identify as heterosexual ( $M = 3.18, SD = .83$ ). Individuals who did not identify as heterosexual also scored significantly higher in social inhibition,  $t(166) = 4.27, p < .001$  ( $M = 2.20, SD = 1.16$ ), envy  $t(166) = 3.49, p < .001$  ( $M = 1.01, SD = .54$ ), and the IRI fantasy subscale  $t(166) = 3.52, p < .001$  ( $M = 2.98, SD = .70$ ) compared to individuals who did identify as heterosexual, ( $M = 1.32, SD = 1.18$ ;  $M = .66, SD = .58$ ; and  $M = 2.54, SD = .73$ , respectively). Individuals who identified as heterosexual scored significantly higher in hostile attributional biases,  $t(166) = -3.12, p = .002$  ( $M = 12.77, SD = 6.12$ ) and psychological abuse perpetration,  $t(166) = -2.23, p = .027$  ( $M = 17.67, SD = 17.55$ ) compared to individuals who did not identify as heterosexual, ( $M = 9.57, SD = 4.98$  and  $M = 10.95, SD = 16.15$ , respectively).

Racial differences were found regarding variables of interest as well (as seen in Table 10), with individuals who were not White scoring higher on grandiose narcissism,  $t(167) = 2.14, p = .034$  ( $M = 3.89, SD = .82$ ) and hostile attributional biases,  $t(167) = 2.83, p = .005$  ( $M = 13.80,$

$SD = 6.12$ ) compared to individuals who were White ( $M = 3.61, SD = .83$  and  $M = 11.08, SD = 5.79$ , respectively). Individuals who were not White also scored higher on the perspective taking,  $t(167) = 3.11, p = .002$  ( $M = 3.03, SD = .61$ ) and empathic concern subscales,  $t(167) = 2.21, p = .028$  ( $M = 3.20, SD = .60$ ) of the IRI compared to individuals who were White ( $M = 2.72, SD = .61$  and  $M = 2.96, SD = .69$ , respectively). Individuals who were White scored higher on social inhibition,  $t(167) = -2.93, p = .004$  ( $M = 1.74, SD = 1.16$ ) and envy,  $t(167) = -2.66, p = .009$  ( $M = .85, SD = .61$ ) compared to individuals who were not White ( $M = 1.17, SD = 1.29$  and  $M = .59, SD = .53$ , respectively).

Participants who identified as Catholic scored significantly higher on grandiose narcissism,  $F(4, 164) = 2.55, p = .041$  ( $M = 4.11, SD = .95$ ) compared to participants who identified as atheist ( $M = 3.51, SD = .85$ ), agnostic ( $M = 3.57, SD = .61$ ), or a member of a non-Christian (e.g., Buddhist, Jewish, Muslim) religion ( $M = 3.55, SD = .86$ ). Participants who identified as Catholic also scored significantly lower on social inhibition,  $F(4, 164) = 10.44, p < .001$  ( $M = .70, SD = .86$ ) compared to participants who identified as atheist ( $M = 2.21, SD = 1.04$ ), agnostic ( $M = 1.57, SD = .95$ ), or a member of a non-Christian (e.g., Buddhist, Jewish, Muslim) religion ( $M = 2.17, SD = 1.12$ ). Participants who identified as a member of a non-Christian (e.g., Buddhist, Jewish, Muslim) religion scored significantly higher on envy,  $F(4, 164) = 2.82, p = .027$  ( $M = 1.01, SD = .71$ ) compared to participants who identified as Christian or Protestant ( $M = .64, SD = .59$ ). Participants who identified as Christian or Protestant scored significantly higher on psychological abuse perpetration, Welch's  $F(4, 75.35) = 4.65, p = .002$  ( $M = 22.22, SD = 19.44$ ) compared to participants who identified as atheist ( $M = 9.96, SD = 10.84$ ) or agnostic ( $M = 9.52, SD = 10.65$ ). Participants who identified as Christian or Protestant scored significantly higher on psychological abuse victimization,  $F(4, 164) = 2.83, p = .026$  ( $M =$

29.98,  $SD = 28.58$ ) compared to participants who identified as atheist ( $M = 16.39$ ,  $SD = 20.89$ ), agnostic ( $M = 13.91$ ,  $SD = 19.32$ ), or a member of a non-Christian (e.g., Buddhist, Jewish, Muslim) religion ( $M = 17.61$ ,  $SD = 22.69$ ). Participants who identified as Christian or Protestant scored significantly higher on empathic concern,  $F(4, 164) = 4.75$ ,  $p = .001$  ( $M = 3.23$ ,  $SD = .49$ ) compared to participants who identified as atheist ( $M = 2.70$ ,  $SD = .76$ ) or agnostic ( $M = 2.73$ ,  $SD = .73$ ). Participants who identified as atheist scored significantly higher on the RMET,  $F(4, 164) = 3.98$ ,  $p = .004$  ( $M = 13.57$ ,  $SD = 2.22$ ) compared to participants who identified as Catholic ( $M = 11.61$ ,  $SD = 2.90$ ) or Christian or Protestant ( $M = 11.83$ ,  $SD = 2.77$ ). Participants who identified as Catholic ( $M = 16.50$ ,  $SD = 6.59$ ) or Christian or Protestant ( $M = 13.48$ ,  $SD = 5.65$ ) scored significantly higher on hostile attributional biases, Welch's  $F(4, 74.66) = 11.08$ ,  $p < .001$  compared to participants who identified as atheist ( $M = 8.64$ ,  $SD = 5.02$ ) or agnostic ( $M = 9.04$ ,  $SD = 3.08$ ), while participants who identified as Catholic also scored significantly higher than participants who identified as a member of a non-Christian (e.g., Buddhist, Jewish, Muslim) religion ( $M = 10.69$ ,  $SD = 5.55$ ).

As seen in Table 12, relationship status influenced grandiose narcissism, with participants who were married scoring significantly higher,  $F(2, 166) = 3.06$ ,  $p = .049$  ( $M = 3.81$ ,  $SD = .90$ ) than participants who were divorced or single ( $M = 3.41$ ,  $SD = .73$ ). Participants who were married also scored significantly higher on perspective taking,  $F(2, 166) = 3.73$ ,  $p = .026$  ( $M = 2.93$ ,  $SD = .59$ ) compared to participants who were divorced or single ( $M = 2.60$ ,  $SD = .59$ ). Participants who were married scored significantly lower on the RMET, Welch's  $F(2, 95.52) = 10.62$ ,  $p < .001$  ( $M = 11.67$ ,  $SD = 2.93$ ) compared to participants who were divorced or single ( $M = 13.61$ ,  $SD = 2.02$ ) or dating or in a committed relationship ( $M = 13.38$ ,  $SD = 2.32$ ). Participants who were married scored significantly higher on hostile attributional biases,  $F(2, 166) = 5.99$ ,  $p$

= .003 ( $M = 13.53$ ,  $SD = 6.47$ ) compared to participants who were divorced or single ( $M = 10.53$ ,  $SD = 4.79$ ) or dating or in a committed relationship ( $M = 10.33$ ,  $SD = 5.38$ ).

Participants who had children scored significantly higher on hostile attributional biases,  $t(166) = -3.95$ ,  $p < .001$  ( $M = 13.41$ ,  $SD = 6.09$ ), psychological abuse perpetration,  $t(165.36) = -3.28$ ,  $p = .001$  ( $M = 18.96$ ,  $SD = 18.69$ ), and psychological abuse victimization,  $t(164.96) = -3.63$ ,  $p < .001$  ( $M = 26.42$ ,  $SD = 26.99$ ) compared to individuals who did not have children, ( $M = 9.87$ ,  $SD = 5.20$ ;  $M = 10.99$ ,  $SD = 12.81$ ; and  $M = 13.77$ ,  $SD = 18.17$ , respectively). Participants who did not have children scored significantly higher on the RMET,  $t(165.46) = 4.93$ ,  $p < .001$  ( $M = 13.69$ ,  $SD = 2.16$ ) and social inhibition,  $t(166) = 3.40$ ,  $p < .001$  ( $M = 1.91$ ,  $SD = 1.24$ ) compared to participants who did have children, ( $M = 11.80$ ,  $SD = 2.79$  and  $M = 1.28$ ,  $SD = 1.16$ , respectively).

Participants' level of education was significantly associated with grandiose narcissism ( $r = .17$ ,  $p < .027$ ), social inhibition ( $r = -.21$ ,  $p = .006$ ), the RMET ( $r = -.21$ ,  $p = .007$ ), and hostile attributional biases ( $r = .17$ ,  $p = .032$ ). Level of education attained by participants' father figure was associated with grandiose narcissism ( $r = .16$ ,  $p = .037$ ), social inhibition ( $r = -.20$ ,  $p = .011$ ), and the RMET ( $r = -.22$ ,  $p = .004$ ). Socioeconomic status of participants' family of origin was associated with vulnerable narcissism ( $r = -.23$ ,  $p = .002$ ), social inhibition ( $r = -.30$ ,  $p < .001$ ), and envy of others ( $r = -.22$ ,  $p = .004$ ).

Participants who were currently students scored significantly higher on grandiose narcissism,  $t(167) = -2.29$ ,  $p = .023$  ( $M = 3.97$ ,  $SD = .71$ ) and hostile attributional biases,  $t(167) = -2.38$ ,  $p = .019$  ( $M = 14.00$ ,  $SD = 6.24$ ), compared to participants who were not students ( $M = 3.26$ ,  $SD = .85$  and  $M = 11.40$ ,  $SD = 5.85$ , respectively). Participants who were not students



scored significantly higher on the RMET,  $t(44.92) = 2.87, p = .006 (M = 12.98, SD = 2.22)$  compared to participants who were currently students,  $(M = 11.16, SD = 3.72)$ .

Participants who were not employed or who described themselves as “freelancers” scored higher on social inhibition,  $F(2, 166) = 3.70, p = .027 (M = 1.91, SD = 1.29)$  compared to participants who were employed and worked less than 40 hours per week  $(M = 1.23, SD = 1.20)$ . Participants who were employed and worked less than 40 hours per week scored higher on hostile attributional biases,  $F(2, 166) = 5.48, p = .005 (M = 14.02, SD = 6.76)$  and psychological abuse perpetration,  $F(2, 166) = 4.10, p = .018 (M = 20.90, SD = 18.85)$  compared to participants who were not employed or who described themselves as “freelancers”  $(M = 10.95, SD = 14.30)$  and  $M = 10.09, SD = 5.21$ , respectively).

Participants’ age was significantly associated with grandiose narcissism  $(r = -.34, p < .001)$ , vulnerable narcissism  $(r = -.35, p < .001)$ , the IIP envy subscale  $(r = -.24, p = .002)$ , the IRI empathic concern subscale  $(r = -.22, p = .002)$ , the IRI fantasy subscale  $(r = -.29, p < .001)$ , psychological abuse perpetration  $(r = -.20, p = .010)$ , and psychological abuse victimization  $(r = -.20, p = .011)$ . Number of children a participant had was associated with RMET scores  $(r = .21, p = .045)$ , while number of siblings a participant had was associated with psychological abuse perpetration  $(r = .21, p = .006)$  and psychological abuse victimization  $(r = .20, p = .010)$ .

### Inferential Analyses

Hypothesis 1: The following variables will explain significant unique variance on my measure of grandiose narcissism: interpersonal problems associated with being domineering; impaired cognitive and affective empathy as measured by lower than average scores on the RMET and IRI; and hostile attributional biases. A backward stepwise regression was conducted to determine which demographic variables previously found to be significantly associated with

grandiose narcissism were significant predictors of unique variance in grandiose narcissism in the regression model. Sex ( $t(4, 157) = 5.50, p < .001, \beta = .584$ ), the dummy coded gender variable for cisgender women ( $t(4, 157) = 2.82, p = .005, \beta = .303$ ), racial identity ( $t(4, 157) = 1.79, p = .076, \beta = .124$ ), and age ( $t(4, 157) = -4.78, p < .001, \beta = -.329$ ) all remained as significant predictors of grandiose narcissism in the backward stepwise regression. A hierarchical regression was then conducted to control for the influence of these identified demographic variables in Step 1, while including the independent variables in Step 2. The model was significant in Step 1 ( $\Delta R^2 = .283, \Delta F = 15.53, p < .001$ ) and Step 2 ( $\Delta R^2 = .207, \Delta F = 10.23, p < .001$ ). In Step 2, sex ( $t(10, 151) = 5.44, p < .001, \beta = .530$ ), the dummy coded gender variable for cisgender women ( $t(10, 151) = 2.83, p = .005, \beta = .264$ ), and age ( $t(10, 151) = -3.57, p < .001, \beta = -.226$ ) were still significant predictors of grandiose narcissism. Additionally, domineering interpersonal behaviors ( $t(10, 151) = 3.93, p < .001, \beta = .247$ ) and the IRI Fantasy subscale ( $t(10, 151) = 3.64, p < .001, \beta = .265$ ) were also significant predictors of unique variance in grandiose narcissism. In contrast, racial identity ( $t(10, 151) = 1.49, p = .139, \beta = .093$ ), IRI Perspective Taking scores ( $t(10, 151) = 1.53, p = .127, \beta = .116$ ), IRI Empathic Concern scores ( $t(10, 151) = .80, p = .427, \beta = .066$ ), the RMET ( $t(10, 151) = .64, p = .522, \beta = .046$ ), and hostile attributional biases ( $t(10, 151) = 1.64, p = .103, \beta = .112$ ) were not significant predictors of grandiose narcissism (see Table 13).

Hypothesis 2: The following variables will explain significant unique variance on my measure of vulnerable narcissism: interpersonal problems associated with being socially inhibited; envy/jealousy of others; impaired cognitive and affective empathy as measured by lower than average scores on the RMET and IRI; and hostile attributional biases. A backward stepwise regression was conducted to determine which demographic variables previously found

to be significantly associated with vulnerable narcissism were significant predictors of vulnerable narcissism in the regression model. Age ( $t(2, 165) = -4.61, p < .001, \beta = -.330$ ) and family of origin socioeconomic status ( $t(2, 165) = -2.85, p = .005, \beta = -.204$ ) were significant predictors of vulnerable narcissism in the backward stepwise regression. A hierarchical regression was then conducted to control for the influence of the identified demographic variables in Step 1, while including the independent variables in Step 2. The model was significant in Step 1 ( $\Delta R^2 = .163, \Delta F = 16.15, p < .001$ ) and Step 2 ( $\Delta R^2 = .403, \Delta F = 21.08, p < .001$ ). In Step 2, age ( $t(9, 159) = -2.73, p = .007, \beta = -.156$ ) was still a significant predictor of vulnerable narcissism. Envy ( $t(9, 159) = 5.91, p < .001, \beta = .426$ ), the IRI Fantasy subscale ( $t(9, 159) = 3.57, p < .001, \beta = .238$ ), and hostile attributional biases ( $t(9, 159) = 5.14, p < .001, \beta = .306$ ) were also significant predictors of vulnerable narcissism. Socially inhibited interpersonal behaviors ( $t(9, 159) = 1.56, p = .120, \beta = .110$ ), IRI Perspective Taking ( $t(9, 159) = -1.68, p = .094, \beta = -.112$ ), IRI Empathic Concern ( $t(9, 159) = .115, p = .909, \beta = .008$ ), and the RMET ( $t(9, 159) = 1.77, p = .079, \beta = .105$ ) were not significant predictors of vulnerable narcissism (see Table 14).

Hypothesis 3: I hypothesize that grandiose narcissism will explain significant unique variance on my measure of psychological abuse perpetration over and above the predictor variables discussed in Hypothesis 1 (interpersonal problems associated with being domineering; impaired cognitive and affective empathy; and hostile attributional biases). A backward stepwise regression was conducted to determine which demographic variables previously found to be significantly associated with psychological abuse perpetration were significant predictors of psychological abuse perpetration in the regression model. Age ( $t(5, 161) = -3.62, p < .001, \beta = -.263$ ), number of siblings ( $t(5, 161) = 2.58, p = .011, \beta = .183$ ), parental status ( $t(5, 161) = -2.37,$

$p = .019$ ,  $\beta = -.184$ ), the dummy coded religion variable for individuals who identified as Christian ( $t(5, 161) = 2.36$ ,  $p = .020$ ,  $\beta = .176$ ), and the dummy coded employment variable for individuals who were employed and worked less than 40 hours per week ( $t(5, 161) = 2.16$ ,  $p = .032$ ,  $\beta = .153$ ) were significant predictors of psychological abuse perpetration in the backward stepwise regression.

A hierarchical regression was conducted to test hypothesis 3, with the previously identified demographic variables entered in step 1, the variables discussed in Hypothesis 1 entered in step 2, and grandiose narcissism entered in step 3. The model was significant in step 1 ( $\Delta R^2 = .216$ ,  $\Delta F = 8.95$ ,  $p < .001$ ). Age ( $t(5, 162) = -3.61$ ,  $p < .001$ ,  $\beta = -.261$ ), number of siblings ( $t(5, 162) = 2.59$ ,  $p = .010$ ,  $\beta = .184$ ), parental status ( $t(5, 162) = -2.35$ ,  $p = .020$ ,  $\beta = -.182$ ), the dummy coded religion variable for individuals who identified as Christian ( $t(5, 162) = 2.41$ ,  $p = .017$ ,  $\beta = .179$ ), and the dummy coded employment variable for individuals who were employed and worked less than 40 hours per week ( $t(5, 162) = 2.14$ ,  $p = .034$ ,  $\beta = .151$ ) were all significant in step 1. Significant variance was added in step 2 ( $\Delta R^2 = .123$ ,  $\Delta F = 4.86$ ,  $p < .001$ ), with domineering interpersonal behaviors ( $t(11, 156) = 3.75$ ,  $p < .001$ ,  $\beta = .262$ ) and hostile attributional biases ( $t(11, 156) = 2.57$ ,  $p = .011$ ,  $\beta = .197$ ) significantly predicting psychological abuse perpetration. Parental status ( $t(11, 156) = -1.31$ ,  $p = .194$ ,  $\beta = -.103$ ), IRI Perspective Taking ( $t(11, 156) = -1.10$ ,  $p = .272$ ,  $\beta = -.090$ ), IRI Empathic Concern ( $t(11, 156) = .34$ ,  $p = .736$ ,  $\beta = .031$ ), IRI Fantasy ( $t(11, 156) = .43$ ,  $p = .672$ ,  $\beta = .035$ ), and the RMET ( $t(11, 156) = .01$ ,  $p = .994$ ,  $\beta = .001$ ) were all nonsignificant. Significant variance was not added to the model in step 3 ( $\Delta R^2 = .001$ ,  $\Delta F = .211$ ,  $p = .647$ ), as grandiose narcissism was nonsignificant ( $t(12, 155) = .46$ ,  $p = .647$ ,  $\beta = .038$ ; see Table 15).

Hypothesis 4: I hypothesize that vulnerable narcissism will explain significant unique

variance on my measure of psychological abuse perpetration over and above the predictor variables discussed in Hypothesis 2 (interpersonal problems associated with being socially inhibited; envy/jealousy of others; impaired cognitive and affective empathy; and hostile attributional biases). A hierarchical regression was conducted to test this hypothesis, with the significant demographic variables identified in Hypothesis 3 entered in step 1, the variables discussed in Hypothesis 2 entered in step 2, and vulnerable narcissism entered in step 3. Significant variance was added in step 2 ( $\Delta R^2 = .078$ ,  $\Delta F = 2.44$ ,  $p = .021$ ), with hostile attributional biases ( $t(12, 155) = 3.09$ ,  $p = .002$ ,  $\beta = .243$ ) significantly predicting psychological abuse perpetration. Parental status ( $t(12, 155) = -1.52$ ,  $p = .131$ ,  $\beta = -.124$ ), the dummy coded employment variable for individuals who were employed and worked less than 40 hours per week ( $t(12, 155) = 1.58$ ,  $p = .117$ ,  $\beta = .112$ ), socially inhibited interpersonal behaviors ( $t(12, 155) = -1.29$ ,  $p = .200$ ,  $\beta = -.116$ ) envy/jealousy of others ( $t(12, 155) = 1.69$ ,  $p = .093$ ,  $\beta = .156$ ), IRI Perspective Taking ( $t(12, 155) = -.99$ ,  $p = .322$ ,  $\beta = -.085$ ), IRI Empathic Concern ( $t(12, 155) = -.34$ ,  $p = .737$ ,  $\beta = -.032$ ), and IRI Fantasy ( $t(12, 155) = .74$ ,  $p = .462$ ,  $\beta = .064$ ) were all nonsignificant. Significant variance was added to the model in step 3 ( $\Delta R^2 = .018$ ,  $\Delta F = 4.03$ ,  $p = .047$ ), as vulnerable narcissism was significantly associated with psychological abuse perpetration ( $t(13, 154) = 2.00$ ,  $p = .047$ ,  $\beta = .203$ ; see Table 16).

Hypothesis 5: I hypothesize that grandiose narcissism will explain significant unique variance on my measure of psychological abuse victimization over and above the predictor variables discussed in Hypothesis 1 (interpersonal problems associated with being domineering; impaired cognitive and affective empathy; and hostile attributional biases), but will have a negative association with victimization. A backward stepwise regression was conducted to determine which demographic variables previously found to be significantly associated with

psychological abuse victimization were significant predictors of psychological abuse victimization in the regression model. Age ( $t(4, 163) = -4.14, p < .001, \beta = -.305$ ), parental status ( $t(4, 163) = -4.23, p < .001, \beta = -.316$ ), number of siblings ( $t(4, 163) = 2.62, p = .010, \beta = .189$ ), and the dummy coded religion variable for individuals who identified as Catholic ( $t(4, 163) = -1.81, p = .072, \beta = -.131$ ) were significant predictors of psychological abuse victimization in the backward stepwise regression.

A hierarchical regression was conducted to test hypothesis 5, with the previously identified demographic variables entered in step 1, the variables discussed in Hypothesis 1 entered in step 2, and grandiose narcissism entered in step 3. The model was significant in step 1 ( $\Delta R^2 = .184, \Delta F = 9.21, p < .001$ ), and step 2 added significant variance ( $\Delta R^2 = .119, \Delta F = 4.47, p < .001$ ). In step 2, domineering interpersonal behaviors ( $t(10, 157) = 3.50, p < .001, \beta = .254$ ), and hostile attributional biases ( $t(10, 157) = 2.32, p = .021, \beta = .187$ ) significantly predicted psychological abuse victimization. The dummy coded religion variable for individuals who identified as Catholic ( $t(10, 157) = -1.95, p = .053, \beta = -.145$ ), IRI Perspective Taking ( $t(10, 157) = -.77, p = .441, \beta = -.065$ ), IRI Empathic Concern ( $t(10, 157) = 1.31, p = .191, \beta = .123$ ), IRI Fantasy ( $t(10, 157) = -.28, p = .784, \beta = -.023$ ), and the RMET ( $t(10, 157) = -.67, p = .503, \beta = -.053$ ) were all nonsignificant. Significant variance was not added to the model in step 3 ( $\Delta R^2 = .003, \Delta F = .612, p = .435$ ), as grandiose narcissism was nonsignificant ( $t(11, 156) = .78, p = .435, \beta = .068$ ; see Table 17).

Hypothesis 6: I hypothesize that vulnerable narcissism will explain significant unique variance on my measure of psychological abuse victimization over and above the predictor variables discussed in Hypothesis 2 (interpersonal problems associated with being socially inhibited; envy/jealousy of others; impaired cognitive and affective empathy; and hostile

attributional biases), but will have a negative association with victimization. A hierarchical regression was conducted to test this hypothesis, with the significant demographic variables identified in Hypothesis 5 entered in step 1, the variables discussed in Hypothesis 2 entered in step 2, and vulnerable narcissism entered in step 3. Significant variance was added in step 2 ( $\Delta R^2 = .088$ ,  $\Delta F = 2.68$ ,  $p = .012$ ), with age ( $t(11, 156) = -2.96$ ,  $p = .004$ ,  $\beta = -.235$ ), parental status ( $t(11, 156) = -2.82$ ,  $p = .005$ ,  $\beta = -.225$ ), the dummy coded religion variable for individuals who identified as Catholic ( $t(11, 156) = -2.75$ ,  $p = .007$ ,  $\beta = -.213$ ), number of siblings ( $t(11, 156) = 2.38$ ,  $p = .019$ ,  $\beta = .170$ ), hostile attributional biases ( $t(11, 156) = 2.94$ ,  $p = .004$ ,  $\beta = -.237$ ), and envy/jealousy of others ( $t(11, 156) = 2.15$ ,  $p = .033$ ,  $\beta = .200$ ) significantly predicting psychological abuse victimization. IRI Perspective Taking ( $t(11, 156) = -.52$ ,  $p = .605$ ,  $\beta = -.045$ ), IRI Empathic Concern ( $t(11, 156) = .73$ ,  $p = .464$ ,  $\beta = .069$ ), IRI Fantasy ( $t(11, 156) = -.17$ ,  $p = .868$ ,  $\beta = -.015$ ), the RMET ( $t(11, 156) = -.28$ ,  $p = .782$ ,  $\beta = -.022$ ), and socially inhibited interpersonal behaviors ( $t(11, 156) = -1.72$ ,  $p = .087$ ,  $\beta = -.162$ ) were all nonsignificant. Significant variance was not added to the model in step 3 ( $\Delta R^2 = .003$ ,  $\Delta F = .714$ ,  $p = .400$ ), as vulnerable narcissism was nonsignificant ( $t(12, 155) = .85$ ,  $p = .400$ ,  $\beta = .087$ ; see Table 18).

## CHAPTER 4

### DISCUSSION

My study has identified several socio-cognitive characteristics and processes that are related to both subtypes of narcissism and experiences with psychological abuse. At its core, grandiose narcissism appears to consist of behaviors designed to dominate and control other people, as well as fantastical imaginations regarding one's own experiences and achievements. Vulnerable narcissism shares this focus on grandiose fantasies, but also includes an individual's envy of other people, theoretically due to low self-esteem and an unstable sense of self. This envy and instability is associated with the perception of other people as hostile and untrustworthy, theoretically stemming from early experiences with unmet emotional needs (Kernberg, 1975).

Both psychological abuse perpetration and psychological abuse victimization also involve perceptions of ill intentions, and these biases combined with the instability and affect dysregulation associated with vulnerable narcissism can result in the perpetration of psychological abuse. The significant influences of domineering behaviors and envy of others present in psychological abuse victimization suggest that perpetration and victimization share similar underlying processes, which may explain why the reciprocity of violence is so common. This reciprocity is also illustrated by the significant association between psychological abuse perpetration and psychological abuse victimization in my preliminary analyses. However, the significant associations among many of my variables of interest makes it difficult to identify predictors of unique variance in my regression models. Consequently, it may be more beneficial to consider the similarities between my variables of interest and how the processes that underlie them contribute to my outcome variables.



## Main Findings

There were many significant associations among my variables of interest. In my preliminary analyses, grandiose narcissism was highly correlated with all other variables of interest, while vulnerable narcissism was highly correlated with all variables of interest except for IRI Perspective Taking, IRI Empathic Concern, and the RMET. The numerous associations present among my variables of interest does create some concern regarding my ability to replicate these findings. It is possible that suppressor effects may influence the significance levels of the relationships between my independent variables and dependent variables in my regression models. Consequently, interpretation of my findings must include these statistical limitations.

My first hypothesis was only partially supported. Domineering interpersonal behaviors contributed significant unique variance in grandiose narcissism, which is consistent with existing literature (e.g., Miller et al., 2012). As previously discussed, the desire to control others is a hallmark of grandiose narcissism (Miller et al., 2011), and grandiose narcissism has been associated with similar characteristics such as hostility and assertiveness and the use of aggressive interpersonal behaviors such as yelling or making threats (Miller et al., 2011). Additionally, grandiose narcissism has been negatively associated with characteristics that are antithetical to dominance, such as compliance and modesty (Miller et al., 2011). This finding demonstrates that much of grandiose narcissism can be understood within the context of interpersonal interactions, particularly regarding these individuals' aggressive and controlling behavior toward others.

Contrary to expectations, the IRI Fantasy subscale was significantly positively associated with grandiose narcissism. Additionally, IRI Perspective Taking and IRI Empathic Concern

scores were also positively associated with grandiose narcissism, albeit nonsignificantly. This finding contradicts existing literature demonstrating a negative relationship between narcissism and self-reported empathy (e.g., Lee & Kang, 2020). However, this finding may be unduly influenced by issues associated with measurement method, as suggested by previous literature (e.g., Urbonaviciute & Hepper, 2020). These results may have been impacted by external factors such as social desirability bias (Lovett & Sheffield, 2007), given societal acknowledgement of empathy as an admirable and desirable characteristic to possess. As previously discussed, narcissism is associated with socially desirable responding and self-monitoring behaviors (Kowalski et al., 2018). Narcissistic individuals often strive to present themselves in a positive manner to other people in a bid to enhance their own self-worth (Kowalski et al., 2018), making it more likely that they would endorse exhibiting characteristics that would lead them to be esteemed by others. Additionally, Ronningstam's (2009) assertion that empathy in narcissistic individuals may be situational and used to serve a purpose may also provide an explanation for this finding. Narcissistic individuals may not experience an outright deficit in empathic functioning but may have learned to co-opt the process to serve their own self-enhancement purposes.

The IRI Fantasy subscale may be particularly aligned with narcissistic purposes, given its emphasis on imagination (e.g., “When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me”) and grandiosely narcissistic individuals' tendency to fantasize about their own importance and successes. Lastly, the significant associations among the subscales of the IRI (see Table 4) may have resulted in one or multiple subscales becoming redundant. In my preliminary analyses, all three IRI subscales were significantly associated with grandiose narcissism. However, the IRI Fantasy may have

accounted for a significant portion of the variance shared by the other two IRI subscales, rendering them nonsignificant.

My second hypothesis was partially supported as well. Envy or jealousy of other people did significantly predict vulnerable narcissism. This finding is in line with Klein's (1957) conceptualization of narcissism. Klein's (1957) conceptualization of narcissism is most similar to the current understanding of vulnerable narcissism, and envy was considered to be a core component. Klein (1957) theorized that narcissistic individuals' underlying feelings of inferiority led to envy of others, which in turn led to the development of narcissism as a defense against these uncomfortable feelings. This theorization has been supported by research demonstrating a link between envy and vulnerable narcissism (Krizan & Johar, 2012). Given the fragile and unstable self-esteem and self-concept experienced by vulnerably narcissistic individuals, they are likely to respond poorly to anything that may threaten the way they view themselves. Consequently, they are likely to feel envious of others quite often, which in turn sustains their narcissistic experience.

Given the heightened sensitivity to perceived ego threats experienced by vulnerably narcissistic individuals, it is not surprising that hostile attributional biases were a significant predictor of vulnerable narcissism as well. As previously discussed, existing literature has found a link between vulnerable narcissism and hostile attributional biases, while a link between grandiose narcissism and hostile attributional biases is more tenuous (Hansen-Brown & Freis, 2021). This discrepancy may be attributed to a second link between hostile attributional biases and fragile self-concept, the latter of which is a hallmark of vulnerable narcissism specifically (Edwards & Bond, 2012). Indeed, whereas some research has found that narcissism and an unstable self-concept predict hostile attributional biases together (e.g., Stucke & Sporer, 2002),

Edwards and Bond (2012) found that unstable self-concept and narcissism separately predicted hostile attributional biases. This finding suggests that the combination of the two, as characterized by vulnerable narcissism specifically, would result in a particularly strong relationship with hostile attributional biases.

As with grandiose narcissism, the IRI Fantasy subscale was a significant predictor of vulnerable narcissism; the RMET was positively, albeit nonsignificantly, associated. This finding may be due to the same or similar factors as identified in Hypothesis 1. As previously discussed, measurement method may have influenced this finding, as self-report measures of empathy may be more impacted by external factors such as social desirability bias (Lovett & Sheffield, 2007; Urbonaviciute & Hepper, 2020). Additionally, although fantasizing about one's success or importance may be characterizing of grandiose narcissism, the practice can also occur with vulnerably narcissistic individuals. Miller et al.'s (2011) factor analysis of three self-report measures of narcissism found that the PNI's Grandiose Fantasies subscales, typically associated with grandiose narcissism, actually loaded more strongly onto the identified vulnerable narcissism factor. This suggests that imaginations of one's self-importance may be more central to narcissism in general, rather than a specific subtype of narcissism. Interestingly, IRI Perspective Taking was (nonsignificantly) negatively associated with vulnerable narcissism. This is consistent with literature examining the link between cognitive empathy and vulnerable narcissism (e.g., March, 2019) and may also be influenced by the emotional dysregulation often experienced by individuals who are vulnerably narcissistic, as previously discussed (Baskin-Sommers et al., 2014). In other words, vulnerably narcissistic individuals may avoid taking the perspective of others to avoid contact with and acknowledgement of unpleasant emotions and

experiences, which may be a threat to their already fragile self-concept and their ability to regulate their emotions effectively.

The positive association between social inhibition and vulnerable narcissism is consistent with my expectations, although the finding was nonsignificant in the regression model. However, a significant association was demonstrated in my preliminary analyses (see Table 4), suggesting that the two may not be completely unrelated. The social avoidance exhibited by vulnerably narcissistic individuals has been well-documented (e.g., Dickinson & Pincus, 2003), and the nonsignificance of this finding may be due more to its overlap with the other independent variables in the regression model rather than a true lack of association. It has been suggested that the social inhibition characteristic of vulnerable narcissism stems from a desire to avoid feelings of shame or envy, often brought on by perceived slights or ego threats (Caligor et al., 2015). As such, it is possible that social inhibition may be more of a consequence of the significant independent variables already discussed, specifically envy of others and hostile attributional biases. Future research might productively explore the complexities among the relationships beyond my regression model, as this finding may suggest a different sort of relationship between variables (e.g., mediational).

My third hypothesis was not supported, as grandiose narcissism did not predict significant unique variance in psychological abuse perpetration over and above the variables identified in hypothesis 1 (domineering behaviors, impaired cognitive and affective empathy, hostile attributional biases). This is inconsistent with my preliminary analyses, as well as existing literature demonstrating that there is a significant association between grandiose narcissism and psychological abuse (e.g., Ponti et al., 2020). It is possible that external factors such as response bias may have influenced the reporting of psychological abuse perpetration. However, it is also

possible that the influence of grandiose narcissism on psychological abuse perpetration may have been subsumed by other independent variables in the regression model. In particular, the overlap between grandiose narcissism and domineering interpersonal behaviors may have impacted the amount of unique variance that could have been added by each variable.

Domineering interpersonal behaviors were significantly associated with psychological abuse perpetration. This is unsurprising given that psychological abuse is conceptualized as aggressive behaviors designed to allow an individual to dominate or control their partner (Sackett & Saunders, 1999). In fact, the IIP-32 items assessing domineering interpersonal behaviors (e.g., “I am too aggressive toward other people”) were conceptually similar to the MMEA items assessing psychological abuse (e.g., “threatened to hit the other person”). Given these redundancies, it makes sense that domineering interpersonal behaviors and psychological abuse perpetration were so highly correlated in both my preliminary analyses and my regression model. Individuals who perpetrate domineering behaviors towards other people in general are likely to maintain those same control-seeking behaviors in their romantic relationships.

Domineering interpersonal behaviors were also significantly associated with grandiose narcissism both in my preliminary analyses (see Table 4) and the regression model outlined in Hypothesis 1. This likely occurred because grandiose narcissism is also conceptualized as involving an individual’s desire to assert their own superiority through dominating and controlling others, as previously discussed. Miller et al.’s (2012) finding that grandiose narcissism was associated with domineering behaviors specifically as assessed by the IIP reinforces my assertion that the two concepts share similar underpinnings. Consequently, it is very possible that any variance that could have been added to the regression model by adding grandiose narcissism in Step 3 was already accounted for by the presence of domineering

behaviors in Step 2. This occurrence does lend credence to my assertion that narcissism can be most thoroughly understood through comprehension of the processes by which narcissistic individuals relate to and interact with other people.

Hostile attributional biases were also significantly associated with psychological abuse perpetration. This is consistent with existing literature (e.g., Thomas & Weston, 2020) demonstrating a link between these cognitive biases and aggressive behavior. Regarding psychological abuse specifically, Thomas and Weston (2020) found that individuals who exhibited higher levels of hostile attributional biases also perpetrated aggressive behaviors characteristic of psychological abuse, such as making threats, giving insults, destroying objects, or attempting to control a partner. Individuals who interpret neutral stimuli as hostile are likely to respond in kind (Arsenio et al., 2009), possibly due in part to deficits in other socio-cognitive processes such as perspective-taking or conflict resolution skills. Therefore, it is possible that much of the psychological abuse perpetrated by my participants could be considered reactive aggression that occurred in response to a perceived slight by a partner.

My fourth hypothesis was supported, as vulnerable narcissism did predict significant unique variance in psychological abuse perpetration over and above the variables identified in hypothesis 2 (social inhibition, envy/jealousy of others, impaired cognitive and affective empathy, hostile attributional biases). This finding is consistent with existing psychodynamic and object-relations conceptualizations of narcissism in general, which are in turn consistent with the newer concept of vulnerable narcissism specifically. The relationship between vulnerable narcissism and psychological abuse perpetration may be influenced by vulnerably narcissistic individuals' underlying feelings of inferiority and resulting emotions of shame and guilt. Kohut (1972) coined the term "narcissistic rage" to describe the intense anger a narcissistic individual

experiences in response to a perceived ego threat. Oftentimes this anger may seem unreasonable, resulting in excessive acts of aggression that occur for seemingly no reason. Kohut (1972) described narcissistic rage as being influenced by an individual's desire for vengeance and stated that narcissistic individuals will often attempt to retaliate against the perpetrator of the perceived ego threat by any means necessary. In other words, narcissistic individuals will attempt to evoke the same feelings of shame and inadequacy in the other person that they feel in themselves.

Due to these underlying negative feelings and unstable self-concept, it makes sense that psychological abuse perpetration would be highly associated with vulnerable narcissism. Indeed, Green and Charles (2019) found that vulnerable narcissists utilized psychological abuse tactics involving manipulation and indirect aggression (i.e., passive-aggressiveness) to defend against their underlying fear that their romantic partner would leave them. This preoccupation with the possibility of rejection and abandonment stems from these individuals' feelings of inferiority, as they are dependent on receiving validation from others to reassure them that they are not as unworthy as they believe themselves to be. When these individuals do not receive the validation they are seeking, they became enraged and react aggressively. The processes underlying this finding are similar to those underlying and influencing the significant relationship between hostile attributional biases and psychological abuse perpetration. As previously discussed, hostile attributional biases are associated with the perpetration of aggressive behaviors (Thomas & Weston, 2020), likely due to deficits in other socio-cognitive processes. Individuals who exhibit hostile attributional biases struggle to accurately interpret the behaviors and intentions of others, and are hypersensitive to perceived slights in the same manner as vulnerably narcissistic individuals. Consistent with psychodynamic theory (e.g., Kernberg, 1975), vulnerably narcissistic individuals view the world as hostile and threatening, much in the same manner as



individuals exhibiting hostile attributional biases view other people as threatening. These cognitive biases lead these individuals to act antagonistically toward others in order to both defend against perceived attacks and exact revenge against those attacking them.

My fifth hypothesis was not supported, as grandiose narcissism did not predict significant unique variance in psychological abuse victimization over and above the variables identified in hypothesis 1 (domineering behaviors, impaired cognitive and affective empathy, hostile attributional biases) and was not negatively associated with psychological abuse victimization. This finding is contrary to my expectations but may be consistent with some existing literature. For instance, Afifi et al. (2011) found that childhood experiences with abuse and neglect, including psychological abuse, were associated with Narcissistic Personality Disorder, Antisocial Personality Disorder, and Borderline Personality Disorder. The criteria for Narcissistic Personality Disorder are most consistent with the conceptualization of grandiose narcissism, and these three personality disorders share a common feature of turbulent, melodramatic interactions and behavior (Afifi et al., 2011). The associations between childhood maltreatment and these particular personality disorders lends credence to the assertion that unsatisfactory connections with parental figures in childhood leads to difficulty regulating emotions effectively and maintaining healthy relationships. Additionally, Kernberg's (1975) description of the parents of narcissistic individuals as hostile, emotionally unavailable, and possibly exploitative implies that narcissistic individuals were modeled inappropriate emotional and social behaviors early on. This modeling, combined with the development of narcissism as a defense mechanism, sets the stage for the development of problematic social behaviors and cognitions that result in tumultuous relationships characterized by abuse. Additionally, it is also possible that the variance that would have been added to the model by grandiose narcissism in step 3 was instead added by

domineering behaviors in step 2, as much of grandiose narcissism consists of behaviors designed to dominate and control others.

Interestingly, domineering interpersonal behaviors and hostile attributional biases were associated with psychological abuse victimization in addition to psychological abuse perpetration. This finding is supported by the fact that psychological abuse perpetration and psychological abuse victimization were highly correlated in my sample, and elucidates the reciprocity that is often present within intimate relationships experiencing abuse. Whitaker et al. (2007) found that nearly half of relationships experiencing intimate partner violence involve reciprocal aggression, and Follingstad and Edmundson (2010) discovered that reciprocity extends even to specific psychological abuse tactics. This reciprocity may occur for different reasons, such as one partner's desire to evoke in the other partner the same negative feelings they experienced when being perpetrated against. It's also possible that the more socially acceptable nature of psychological abuse, compared to physical abuse, enables both partners in a relationship to utilize psychological abuse tactics without truly stopping to consider potential ramifications. Regardless, the reciprocity between perpetration and victimization and the significant relationship between the two suggest that the underlying socio-cognitive mechanisms that contribute to one (i.e., domineering behaviors and hostile attributional biases) likely contribute to the other as well.

My last hypothesis was also not supported, as vulnerable narcissism did not predict significant unique variance in psychological abuse victimization over and above the variables identified in hypothesis 1 (social inhibition, envy of others, impaired cognitive and affective empathy, hostile attributional biases) and was not negatively associated with psychological abuse victimization. Again, this finding is in contrary to my expectations, although research on the

relationship between vulnerable narcissism and psychological abuse victimization is limited; the overwhelming majority of research examining the relationship between narcissism and psychological abuse focuses on the role of narcissistic individuals as perpetrators.

Regarding vulnerably narcissistic individuals as victims of abuse, Keene and Epps (2016) found that childhood experiences with physical abuse were associated with vulnerably narcissistic characteristics in emerging adulthood. Additionally, Van Buren and Meehan (2015) found that childhood experiences with maltreatment in general (i.e., no differentiation between forms of abuse) was associated with vulnerable narcissism as well. Although research on this topic may be limited, it appears that there is more literature exploring the relationship between vulnerable narcissism and abuse victimization in the opposite direction of my hypothesis. While I hypothesized that vulnerable narcissism would result in fewer experiences with psychological abuse victimization, it seems more likely that experiences with psychological abuse victimization would result in the development of vulnerably narcissistic characteristics. While my finding was nonsignificant, existing literature supports theories describing the development of vulnerable narcissism as a defense against inadequate early relationships, such as those involving abusive or neglectful parents.

Interestingly, hostile attributional biases and envy of others did add unique variance to the regression model. As previously discussed, the significant influence of hostile attributional biases may be related to the reciprocity present in aggressive relationships as evidenced by the significant relationship between psychological abuse perpetration and psychological abuse victimization in my sample. Envy, however, may be a consequence of psychological abuse victimization as well as a core component of vulnerable narcissism, adding much of the variance on its own that would have been added by vulnerable narcissism. Xiang et al. (2018) found that

childhood experience with abuse was associated with envy in a sample of college students. It was theorized that the negative repercussions associated with experiences being a victim of aggression (e.g., social isolation, mental health struggles) would lead abused individuals to envy those who did not suffer these same experiences. Consequently, the victims of psychological abuse in my sample may be more predisposed to envy others who they perceive as more fortunate, either because they believe others did not share their experiences with abuse or because the lower self-esteem abused individuals experience (Chen & Qin, 2020) leads them to perceive themselves as inferior to other people. Given these connections, it makes sense that envy was significantly associated with both vulnerable narcissism and psychological abuse victimization in my preliminary analyses (see Table 4).

#### Limitations

One of the main limitations of my study involves the likely presence of response bias, by which self-report measures are often influenced. Given that much of the information requested from participants was fairly delicate, it is very likely that participants may have responded in the negative to socially undesirable qualities and behaviors (e.g., narcissistic characteristics, psychological abuse perpetration) and in the affirmative to socially desirable qualities and behaviors (e.g., empathic behaviors). Consequently, my findings may have differed somewhat than if we had incorporated less direct measures in my study (e.g. observational, behavioral tasks). Additionally, my inability to assess whether any participants had not been in a romantic relationship within the last six months (the timeframe used by the MMEA) may have also resulted in somewhat biased responses regarding psychological abuse perpetration and victimization. Participants who did not endorse experiences with psychological abuse may not

have done so because they were involved in non-abusive relationships. Rather, their lack of involvement in a relationship made their response inaccurate and irrelevant.

Additionally, while my sample was evenly split regarding participants' sex assigned at birth and had a wide age range, other demographic variables were less diverse. In particular, gender identity, racial identity, and sexual orientation lacked diversity to an extent, which may limit the generalizability of my results. Given the significant associations among various demographic variables and my variables of interest, it would have been beneficial for my study to include more equal numbers of participants with different identities and backgrounds. Lastly, the significant overlap between variables of interest, particularly those measuring empathy, may have resulted in unstable coefficient effects that would limit the ability of my findings to be replicated. It is possible that other research on this same topic would result in quite different results depending on how variables such as narcissism and empathy were measured and included in statistical analyses.

### Future Directions

Future research would benefit from utilizing more complex models to better understand the complicated associations among my variables of interest. There appeared to be multiple mediational relationships between variables in my study, and some variables appeared to be a core component of other variables (e.g., domineering behaviors composing grandiose narcissism). Analyses such as structural equation modeling may better explore the relationships among my variables of interest and more accurately capture the latent variables and underlying processes that contribute to these relationships. Future research may also benefit from further examining the relationships between narcissism and different forms of intimate partner violence. As previously discussed, while the term “narcissistic abuse” is widely used among the general

population there appears to have been no definition or conceptualization identified among the scientific community. Additionally, research should examine the relationships between narcissism and abuse victimization specifically, as to this point the vast majority of research has only focused on perpetration. Literature resulting from exploring the relationships between narcissism and intimate partner violence would likely be of interest to mental health professionals and organizations focused on preventing intimate partner violence, as there would be increased understanding of the dispositional and situational factors that contribute to the presence of abuse within intimate relationships.

Table 2

*Descriptive Statistics*

Demographic Variable		<i>n</i>	%	Mean (SD)
Age				34.49 (9.167)
Sex	Male	83	49.1	
	Female	86	50.9	
Gender	Cisgender man	71	42.0	
	Cisgender woman	61	36.1	
	Transgender/not within binary	30	17.8	
Sexual Orientation	Heterosexual	124	73.4	
	LGBQ+	44	26.0	
Race/Ethnicity	White	113	66.9	
	People of Color	56	33.1	
Religion	Agnostic	23	13.6	
	Atheist	28	16.6	
	Catholic	28	16.6	
	Christian or Protestant	54	32.0	
	Other <sup>a</sup>	36	21.3	
Relationship Status	Divorced or Single	36	21.3	
	Dating or Committed Relationship	48	28.4	
	Married	85	50.3	

	Demographic Variable	<i>n</i>	%	Mean (SD)
Parental Status	Has children	97	57.4	
	Does not have children	71	42.0	
Education	High school diploma or less	34	20.1	
	Associate degree etc. <sup>b</sup>	27	16.0	
	Four-year college degree	54	32.0	
	Master's or doctorate	54	32.0	
Student Status	Is student	38	22.5	
	Is not student	131	77.5	
Employment Status	Working <40 hours per week	52	30.8	
	Working 40 hours or more	74	43.8	
	Other <sup>c</sup>	43	25.4	
Mother Education	High school diploma or less	60	35.5	
	Some college or associate degree	32	18.9	
	Four-year college degree	50	29.6	
	Master's or doctorate	27	16.0	
Father Education	High school diploma or less	57	33.7	
	Some college or associate degree	16	9.5	
	Four-year college degree	52	30.8	
	Master's or doctorate	37	21.9	
Family of Origin SES	Lower or upper lower class	30	17.8	
	Lower middle class	81	47.9	
	Upper middle class	58	34.3	
Number of Children	One	28	16.6	
	Two	48	28.4	
	Three	17	10.1	
	Four	1	.6	
	Five	2	1.2	
Number of Siblings	Zero	11	6.5	
	One	47	27.8	
	Two	63	37.3	
	Three	24	14.2	
	Four	14	8.3	
	Five	10	5.9	

(a) Buddhist, Jewish, Muslim, religious unaffiliated, secular unaffiliated, don't know, other, multiple religions. (b) Some college, technical school, vocational school. (c) Unemployed, disabled, retired, freelancing

Table 3

*Descriptive Characteristics of Variables*

Variable	Means (SD)	Range	Skewness	Kurtosis
Grandiose Narcissism	3.70 (.83)	1.29 – 5.55	-.49	-.00
Vulnerable Narcissism	3.29 (.82)	1.20 – 5.54	-.18	-.21
IIP Domineering <sup>a</sup>	.55 (.61)	0 – 2.50	1.44	1.80
IIP Socially Inhibited	1.55 (1.23)	0 – 4.00	.34	-1.01
IIP Envy <sup>a</sup>	.76 (.60)	0 – 2.38	.84	.11
IRI Perspective Taking	2.82 (.62)	1.14 – 4.00	-.34	-.34
IRI Empathic Concern <sup>a</sup>	3.04 (.67)	1.14 – 4.00	-.59	-.08
IRI Fantasy	2.65 (.74)	.43 – 4.00	-.53	-.07
RMET <sup>a</sup>	12.57 (2.73)	5 – 17	-.76	.28
Hostile Attributional Biases	11.98 (6.02)	0 – 29	.38	-.41
Psychological Abuse Perpetration <sup>a</sup>	15.91 (17.35)	0 – 70	1.48	1.71
Psychological Abuse Victimization <sup>a</sup>	21.30 (24.51)	0 – 92	1.40	1.00

(a) Winsorized; see text



Table 4

*Bivariate Associations among Variables of Interest*

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1 Grandiose Narcissism	-											
2 Vulnerable Narcissism	.461**	-										
3 IIP Domineering	.282**	.471**	-									
4 IIP Social Inhibition	-.180*	.434**	.204**	-								
5 IIP Envy	.167*	.625**	.530**	.615**	-							
6 IRI Perspective Taking	.315**	-.035	-.108	-.128	-.170*	-						
7 IRI Empathic Concern	.264**	.120	-.190*	-.064	-.099	.553**	-					
8 IRI Fantasy	.407**	.366**	.028	.150	.172*	.380**	.517**	-				
9 RMET	-.158*	.033	-.090	.148	-.027	-.127	.068	.132	-			
10 Hostile Attribution Biases	.298**	.258**	.222**	-.171*	.053	.204**	.186*	.034	-.371**	-		
11 Psychological Abuse Perpetration	.266**	.289**	.338**	-.097	.144	.005	.084	.057	-.221**	.382**	-	
12 Psychological Abuse Victimization	.268**	.247**	.326**	-.057	.167*	.044	.127	.066	-.224**	.324**	.866**	-

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

Table 5

*Cramer's V Effect Sizes of Associations among Demographic Variables*

Variables	1	2	3	4	5	6	7	8	9
1 Sex	-								
2 Gender	.919**	-							
3 Sexual Orientation	.311**	.407**	-						
4 Race/Ethnicity	.012	.177	.017	-					
5 Religion	.290**	.216	.368**	.363**	-				
6 Relationship Status	.363**	.209**	.351**	.081	.234*	-			
7 Parental Status	.257**	.213*	.228**	.043	.419**	.616**	-		
8 Student Status	.151	.115	.121	.042	.141	.127	.106	-	
9 Employment Status	.277**	.191*	.271**	.109	.273**	.202**	.156	.122	-

Table 6

*Point Biserial Correlations among Demographic Variables*

	Variable	<i>r</i>	<i>p</i>
Sex <sup>a</sup>	Age	.019	.805
	Number of Children	-.138	.073
	Number of Siblings	.051	.507
	Educational Attainment	-.226	.003
	Mother Education	-.175	.022
	Father Education	-.254	<.001
	Family of Origin SES	-.122	.114
Sexual Orientation <sup>b</sup>	Age	.139	.073
	Number of Children	.232	.002
	Number of Siblings	.189	.014
	Educational Attainment	.122	.114
	Mother Education	.043	.580
	Father Education	.107	.169
	Family of Origin SES	.276	<.001
Race/Ethnicity <sup>c</sup>	Age	.195	.011
	Number of Children	-.012	.881
	Number of Siblings	-.220	.004
	Educational Attainment	-.029	.705
	Mother Education	-.005	.951
	Father Education	-.028	.720
	Family of Origin SES	-.013	.868
Parental Status <sup>d</sup>	Age	.237	.002
	Number of Children	.846	<.001
	Number of Siblings	.169	.028
	Educational Attainment	.025	.752
	Mother Education	-.080	.300
	Father Education	.084	.277
	Family of Origin SES	.059	.451

(a) Assigned male at birth or assigned female at birth. (b) Heterosexual or not heterosexual. (c) White or person of color. (d) Has children or does not have children.

Table 7

*ANOVAs of Demographic Variables*

	Variable	<i>F</i>	<i>p</i>	$\omega^2$
Gender <sup>a</sup>	Age	1.107	.333	.001
	Number of Children	2.127	.123	.014
	Number of Siblings	.465	.629	-.007
	Educational Attainment	3.67	.028	.032
	Mother Education	2.35	.099	.016
	Father Education	4.22	.016	.038
	Family of Origin SES	3.73	.026	.033
Religion <sup>b</sup>	Age	.585	.674	-.010
	Number of Children	6.187	<.001	.109
	Number of Siblings	5.350	<.001	.093
	Educational Attainment	4.09	.003	.068
	Mother Education	2.44	.049	.033
	Father Education	7.00	<.001	.124
	Family of Origin SES	2.80	.028	.041
Relationship Status <sup>c</sup>	Age	2.068	.130	.012
	Number of Children	31.850	<.001	.267
	Number of Siblings	.527	.593	-.004
	Educational Attainment	3.02	.052	.023
	Mother Education	3.34	.038	.027
	Father Education	4.52	.012	.040
	Family of Origin SES	.843	.432	-.002
Employment Status <sup>d</sup>	Age	.524	.594	-.001
	Number of Children	1.028	.360	.000
	Number of Siblings	.498	.609	-.006
	Educational Attainment	14.71	<.001	.140
	Mother Education	2.67	.072	.019
	Father Education	4.25	.016	.037
	Family of Origin SES	7.49	<.001	.071

(a) Cisgender men, cisgender women, or does not identify with gender binary. (b) Agnostic, atheist, Catholic, Christian, or other religion (e.g., Buddhist, Muslim, non-secular). (c) Married, dating or in a committed relationship, divorced or single. (d) Working less than 40 hours per week, working 40 hours or more, not working (e.g., disabled, retired) or freelancing.

Table 8

*Sex Differences in Variables of Interest*

Variables	Men Means (SD)	Women Means (SD)	T-Test Values
Grandiose Narcissism	4.01 (.80)	3.40 (.76)	5.07, $p < .001$
Vulnerable Narcissism	3.25 (.84)	3.32 (.80)	-.52, $p = .601$
IIP Domineering	.61 (.71)	.49 (.50)	1.36, $p = .175$
IIP Socially Inhibited	1.30 (1.17)	1.79 (1.24)	-2.67, $p = .008$
IIP Envy	.74 (.65)	.78 (.54)	-.48, $p = .633$
IRI Perspective Taking	2.88 (.61)	2.76 (.64)	1.24, $p = .216$
IRI Empathic Concern	2.97 (.71)	3.10 (.62)	-1.29, $p = .200$
IRI Fantasy	2.59 (.70)	2.71 (.78)	-1.06, $p = .293$
RMET	11.35 (2.84)	13.74 (2.03)	-6.29, $p < .001$
Hostile Attributional Biases	13.47 (6.65)	10.55 (4.97)	3.23, $p = .002$
Psychological Abuse Perpetration	18.84 (19.47)	13.08 (14.58)	2.17, $p = .031$
Psychological Abuse Victimization	24.54 (26.11)	18.16 (22.58)	1.70, $p = .092$

Table 9

*Sexual Orientation Differences in Variables of Interest*

Variables	Heterosexual Means (SD)	Not Heterosexual Means (SD)	T-Test Values
Grandiose Narcissism	3.74 (.87)	3.58 (.73)	-1.05, $p = .295$
Vulnerable Narcissism	3.18 (.83)	3.55 (.69)	2.62, $p = .010$
IIP Domineering	.52 (.60)	.59 (.63)	.57, $p = .567$
IIP Socially Inhibited	1.32 (1.18)	2.20 (1.16)	4.27, $p < .001$
IIP Envy	.66 (.58)	1.01 (.54)	3.49 $p < .001$
IRI Perspective Taking	2.82 (.64)	2.82 (.58)	.009, $p = .993$
IRI Empathic Concern	3.05 (.66)	3.02 (.70)	-.28, $p = .783$
IRI Fantasy	2.54 (.73)	2.98 (.70)	3.52, $p < .001$
RMET	12.35 (2.81)	13.25 (2.42)	1.90, $p = .059$
Hostile Attributional Biases	12.77 (6.12)	9.57 (4.98)	-3.12, $p = .002$
Psychological Abuse Perpetration	17.67 (17.55)	10.95 (16.15)	-2.23, $p = .027$
Psychological Abuse Victimization	23.17 (24.90)	16.02 (23.16)	-1.67, $p = .098$

Table 10

*Racial Differences in Variables of Interest*

Variables	White Means (SD)	Not White Means (SD)	T-Test Values
Grandiose Narcissism	3.61 (.83)	3.89 (.82)	2.14, $p = .034$
Vulnerable Narcissism	3.31 (.80)	3.25 (.84)	-.44, $p = .662$
IIP Domineering	.58 (.62)	.48 (.60)	-1.00, $p = .321$
IIP Socially Inhibited	1.74 (1.16)	1.17 (1.29)	-2.93, $p = .004$
IIP Envy	.85 (.61)	.59 (.53)	-2.66, $p = .009$
IRI Perspective Taking	2.72 (.61)	3.03 (.61)	3.11, $p = .002$
IRI Empathic Concern	2.96 (.69)	3.20 (.60)	2.21, $p = .028$
IRI Fantasy	2.63 (.78)	2.69 (.67)	.49, $p = .627$
RMET	12.75 (2.76)	12.20 (2.66)	-1.25, $p = .214$
Hostile Attributional Biases	11.08 (5.79)	13.80 (6.12)	2.83, $p = .005$
Psychological Abuse Perpetration	15.52 (16.84)	16.70 (18.47)	.41, $p = .680$
Psychological Abuse Victimization	20.56 (23.38)	22.79 (26.81)	.56, $p = .580$

Table 11

*Gender Identity Differences in Variables of Interest*

Variables	Cisgender Men Means (SD)	Cisgender Women Means (SD)	Not Binary Means (SD)	<i>F</i>	<i>p</i>	$\omega^2$
Grandiose Narcissism	4.03 (.78)	3.51 (.76)	3.36 (.89)	10.59	< .001	.106
Vulnerable Narcissism	3.20 (.81)	3.26 (.82)	3.48 (.78)	1.26	.286	.003
IIP Domineering	.57 (.66)	.48 (.52)	.58 (.68)	.45	.638	-.007
IIP Socially Inhibited	1.17 (1.09)	1.57 (1.18)	2.29 (1.33)	9.64	< .001	.096
IIP Envy	.69 (.63)	.72 (.53)	1.02 (.60)	3.50	.033	.030
IRI Perspective Taking	2.91 (.60)	2.77 (.63)	2.79 (.68)	.92	.400	-.001
IRI Empathic Concern	2.96 (.71)	3.05 (.67)	3.17 (.61)	1.09	.338	.001
IRI Fantasy	2.56 (.70)	2.74 (.74)	2.71 (.88)	1.04	.357	.000
RMET	11.48 (2.92)	13.97 (1.78)	12.37 (2.79)	19.04	< .001	.157
Hostile Attributional Biases	13.58 (6.58)	9.95 (5.08)	12.30 (5.01)	6.41	.003	.061
Psychological Abuse Perpetration	18.62 (19.30)	11.92 (11.73)	17.83 (20.94)	3.43	.038	.021
Psychological Abuse Victimization	23.46 (24.73)	17.03 (19.47)	24.40 (31.49)	1.46	.236	.006



Table 12

*Relationship Status Differences in Variables of Interest*

Variables	Married Means (SD)	Divorced/Single Means (SD)	Dating/ Committed Means (SD)	<i>F</i>	<i>p</i>	$\omega^2$
Grandiose Narcissism	3.81 (.90)	3.41 (.73)	3.73 (.75)	3.06	.049	.024
Vulnerable Narcissism	3.20 (.87)	3.35 (.87)	3.40 (.67)	1.01	.366	.000
IIP Domineering	.59 (.67)	.44 (.62)	.56 (.50)	.68	.507	-.004
IIP Socially Inhibited	1.39 (1.20)	1.53 (1.20)	1.85 (1.26)	2.19	.115	.014
IIP Envy	.69 (.62)	.80 (.59)	.87 (.55)	1.59	.207	.007
IRI Perspective Taking	2.93 (.59)	2.60 (.59)	2.80 (.67)	3.73	.026	.031
IRI Empathic Concern	3.05 (.73)	3.00 (.52)	3.04 (.68)	.09	.911	-.011
IRI Fantasy	2.58 (.77)	2.68 (.56)	2.75 (.82)	.77	.465	-.003
RMET	11.67 (2.93)	13.61 (2.02)	13.38 (2.32)	10.62	< .001	.100
Hostile Attributional Biases	13.53 (6.47)	10.53 (4.79)	10.33 (5.38)	5.99	.003	.056
Psychological Abuse Perpetration	18.09 (18.02)	10.72 (16.48)	15.94 (16.26)	2.32	.102	.015
Psychological Abuse Victimization	24.35 (25.45)	14.50 (21.75)	20.98 (24.21)	2.07	.129	.013

Table 13

*Hierarchical Regression Analysis for Hypothesis 1: Predicting Grandiose Narcissism*

Variable	Zero-order correlation	$\beta$	$t$	$p$	$\Delta R^2$	$\Delta F$
Step 1				<.001	.283	15.53
Age	-.336	-.329	-4.78	<.001		
Sex	.359	.584	5.50	<.001		
Cisgender Women Dummy Code	-.187	.303	2.82	.005		
Race	.160	.124	1.79	.076		
Step 2				<.001	.207	10.23
Age	-.336	-.226	-3.57	<.001		
Sex	.359	.530	5.44	<.001		
Cisgender Women Dummy Code	-.187	.264	2.83	.005		
Race	.160	.093	1.49	.139		
IIP Domineering	.291	.247	3.93	<.001		
IRI Perspective Taking	.325	.116	1.53	.127		
IRI Empathic Concern	.256	.066	.80	.427		
IRI Fantasy	.405	.265	3.64	<.001		
RMET	-.176	.046	.64	.522		
Hostile Attributional Biases	.296	.112	1.64	.103		

Table 14

*Hierarchical Regression Analysis for Hypothesis 2: Predicting Vulnerable Narcissism*

Variable	Zero-order correlation	$\beta$	$t$	$p$	$\Delta R^2$	$\Delta F$
Step 1				<.001	.163	16.15
Age	-.349	-.331	-4.65	<.001		
Family of Origin SES	-.232	-.204	-2.87	.005		
Step 2				<.001	.403	21.08
Age	-.349	-.156	-2.73	.007		
Family of Origin SES	-.232	-.100	-1.80	.073		
IIP Social Inhibition	.434	.110	1.56	.120		
IIP Envy	.625	.426	5.91	<.001		
IRI Perspective Taking	-.035	-.112	-1.68	.094		
IRI Empathic Concern	.120	.008	.12	.909		
IRI Fantasy	.366	.238	3.57	<.001		
RMET	.033	.105	1.77	.079		
Hostile Attributional Biases	.258	.306	5.14	<.001		

Table 15

*Hierarchical Regression Analysis for Hypothesis 3: Predicting Psychological Abuse Perpetration with Grandiose Narcissism*

Variable	Zero-order correlation	$\beta$	$t$	$p$	$\Delta R^2$	$\Delta F$
Step 1				<.001	.216	8.95
Age	-.205	-.261	-3.61	<.001		
Number of Siblings	.218	.184	2.59	.010		
Parental Status	-.234	-.182	-2.35	.020		
Christian Dummy Code	.271	.179	2.41	.017		
<40 Hours Working Dummy Code	.211	.151	2.14	.034		
Step 2				<.001	.123	4.86
Age	-.205	-.217	-2.96	.004		
Number of Siblings	.218	.199	2.94	.004		
Parental Status	-.234	-.103	-1.31	.194		
Christian Dummy Code	.271	.171	2.42	.017		
<40 Hours Working Dummy Code	.211	.139	2.04	.044		
IIP Domineering	.296	.262	3.75	<.001		
IRI Perspective Taking	.031	-.090	-1.10	.272		
IRI Empathic Concern	.117	.031	.34	.736		
IRI Fantasy	.072	.035	.43	.672		
RMET	-.191	.001	.01	.994		
Hostile Attributional Biases	.362	.197	2.57	.011		
Step 3				.647	.001	.211
Age	-.205	-.207	-2.71	.008		
Number of Siblings	.218	.195	2.83	.005		

*(table continues)*

Variable	Zero-order correlation	$\beta$	$t$	$p$	$\Delta R^2$	$\Delta F$
Parental Status	-.234	-.098	-1.24	.217		
Christian Dummy Code	.271	.174	2.44	.016		
<40 Hours Working Dummy Code	.211	.138	2.03	.044		
IIP Domineering	.296	.253	3.47	<.001		
IRI Perspective Taking	.031	-.096	-1.16	.247		
IRI Empathic Concern	.117	.032	.35	.729		
IRI Fantasy	.072	.023	.27	.786		
RMET	-.191	.002	.03	.979		
Hostile Attributional Biases	.362	.192	2.46	.015		
Grandiose Narcissism	.263	.038	.46	.647		

Table 16

*Hierarchical Regression Analysis for Hypothesis 4: Predicting Psychological Abuse Perpetration with Vulnerable Narcissism*

Variable	Zero-order correlation	$\beta$	$t$	$p$	$\Delta R^2$	$\Delta F$
Step 1				<.001	.216	8.95
Age	-.205	-.261	-3.61	<.001		
Number of Siblings	.218	.184	2.59	.010		
Parental Status	-.234	-.182	-2.35	.020		
Christian Dummy Code	.271	.179	2.41	.017		
<40 Hours Working Dummy Code	.211	.151	2.14	.034		
Step 2				.021	.078	2.44
Age	-.205	-.208	-2.67	.008		

(table continues)

Variable	Zero-order correlation	$\beta$	$t$	$p$	$\Delta R^2$	$\Delta F$
Number of Siblings	.218	.185	2.62	.010		
Parental Status	-.234	-.124	-1.52	.131		
Christian Dummy Code	.271	.176	2.38	.019		
<40 Hours Working Dummy Code	.211	.112	1.58	.117		
IIP Social Inhibition	-.119	-.116	-1.29	.200		
IIP Envy	.099	.156	1.69	.093		
IRI Perspective Taking	.031	-.085	-.99	.322		
IRI Empathic Concern	.117	-.032	-.34	.737		
IRI Fantasy	.072	.064	.74	.462		
RMET	-.191	.023	.29	.771		
Hostile Attributional Biases	.362	.243	3.09	.002		
<b>Step 3</b>				<b>.047</b>	<b>.018</b>	<b>4.03</b>
Age	-.205	-.170	-2.15	.033		
Number of Siblings	.218	.163	2.30	.023		
Parental Status	-.234	-.117	-1.45	.149		
Christian Dummy Code	.271	.177	2.41	.017		
<40 Hours Working Dummy Code	.211	.120	1.71	.089		
IIP Social Inhibition	-.119	-.146	-1.61	.109		
IIP Envy	.099	.071	.70	.484		
IRI Perspective Taking	.031	-.064	-.75	.455		
IRI Empathic Concern	.117	-.027	-.29	.769		
IRI Fantasy	.072	.012	.14	.891		
RMET	-.191	-.001	-.01	.993		
Hostile Attributional Biases	.362	.182	2.18	.031		
Vulnerable Narcissism	.270	.203	2.01	.047		

Table 17

*Hierarchical Regression Analysis for Hypothesis 5: Predicting Psychological Abuse Victimization with Grandiose Narcissism*

Variable	Zero-order correlation	$\beta$	$t$	$p$	$\Delta R^2$	$\Delta F$
Step 1				<.001	.184	9.21
Age	-.197	-.305	-4.14	<.001		
Number of Siblings	.201	.189	2.62	.010		
Parental Status	-.257	-.316	-4.23	<.001		
Catholic Dummy Code	-.040	-.131	-1.81	.072		
Step 2				<.001	.119	4.47
Age	-.197	-.241	-3.17	.002		
Number of Siblings	.201	.186	2.68	.008		
Parental Status	-.257	-.204	-2.62	.010		
Catholic Dummy Code	-.040	-.145	-1.95	.053		
IIP Domineering	.309	.254	3.50	<.001		
IRI Perspective Taking	.056	-.065	-.77	.441		
IRI Empathic Concern	.143	.123	1.31	.191		
IRI Fantasy	.073	-.023	-.28	.784		
RMET	-.210	-.053	-.67	.503		
Hostile Attributional Biases	.313	.187	2.32	.021		
Step 3				.435	.003	.612
Age	-.197	-.226	-2.87	.005		
Number of Siblings	.201	.178	2.54	.012		
Parental Status	-.257	-.199	-2.54	.012		
Catholic Dummy Code	-.040	-.158	-2.08	.040		

*(table continues)*

Variable	Zero-order correlation	$\beta$	$t$	$p$	$\Delta R^2$	$\Delta F$
IIP Domineering	.309	.235	3.07	.002		
IRI Perspective Taking	.056	-.075	-.88	.380		
IRI Empathic Concern	.143	.125	1.34	.183		
IRI Fantasy	.073	-.046	-.52	.608		
RMET	-.210	-.050	-.63	.529		
Hostile Attributional Biases	.313	.182	2.25	.026		
Grandiose Narcissism	.265	.068	.78	.435		

Table 18

*Hierarchical Regression Analysis for Hypothesis 6: Predicting Psychological Abuse Victimization with Vulnerable Narcissism*

Variable	Zero-order correlation	$\beta$	$t$	$p$	$\Delta R^2$	$\Delta F$
Step 1				<.001	.184	9.21
Age	-.197	-.305	-4.14	<.001		
Number of Siblings	.201	.189	2.62	.010		
Parental Status	-.257	-.316	-4.23	<.001		
Catholic Dummy Code	-.040	-.131	-1.81	.072		
Step 2				.012	.088	2.68
Age	-.197	-.235	-2.96	.004		
Number of Siblings	.201	.170	2.38	.019		
Parental Status	-.257	-.225	-2.82	.005		
Catholic Dummy Code	-.040	-.213	-2.75	.007		
IIP Social Inhibition	-.067	-.162	-1.72	.087		

(table continues)



Variable	Zero-order correlation	$\beta$	$t$	$p$	$\Delta R^2$	$\Delta F$
IIP Envy	.147	.200	2.15	.033		
IRI Perspective Taking	.056	-.045	-.52	.605		
IRI Empathic Concern	.143	.069	.73	.464		
IRI Fantasy	.073	-.015	-.17	.868		
RMET	-.210	-.022	-.28	.782		
Hostile Attributional Biases	.313	.237	2.94	.004		
Step 3				.400	.003	.714
Age	-.197	-.219	-2.67	.008		
Number of Siblings	.201	.160	2.22	.028		
Parental Status	-.257	-.222	-2.78	.006		
Catholic Dummy Code	-.040	-.210	-2.70	.008		
IIP Social Inhibition	-.067	-.174	-1.83	.069		
IIP Envy	.147	.163	1.58	.115		
IRI Perspective Taking	.056	-.037	-.419	.676		
IRI Empathic Concern	.143	.071	.75	.453		
IRI Fantasy	.073	-.036	-.39	.695		
RMET	-.210	-.033	-.41	.686		
Hostile Attributional Biases	.313	.211	2.44	.016		
Vulnerable Narcissism	.237	.087	.85	.400		

## REFERENCES

- Afifi, T. O., Mather, A., Boman, J., Fleisher, W., Enns, M. W., MacMillan, H., & Sareen, J. (2011). Childhood adversity and personality disorders: results from a nationally representative population-based study. *Journal of Psychiatric Research, 45*(6), 814-822.
- Albiero, P., Matricardi, G., Speltri, D., & Toso, D. (2009). The assessment of empathy in adolescence: A contribution to the Italian validation of the “Basic Empathy Scale.” *Journal of Adolescence, 32*, 393-408.
- Alden, L. E., Wiggins, J. S., & Pincus, A. L. (1990). Construction of Circumplex Scales for the Inventory of Interpersonal Problems. *Journal of Personality Assessment, 55*(3/4), 521-536.
- Arsenio, W. F., Adams, E., & Gold, J. (2009). Social information processing, moral reasoning, and emotion attributions: Relations with adolescents’ reactive and proactive aggression. *Child Development, 80*(6), 1739-1755.
- Barnett, G., & Mann, R. E. (2013). Empathy deficits and sexual offending: A model of obstacles to empathy. *Aggression and Violent Behavior, 18*, 228-239.
- Baron-Cohen, S., & Jolliffe, T. Mortimore, C., & Robertson, M. (1997). Another Advanced Test of Theory of Mind: Evidence from Very High Functioning Adults with Autism or Asperger Syndrome. *Journal of Child Psychology & Psychiatry & Allied Disciplines, 38*(7), 813-822.
- Baron-Cohen, S., & Wheelwright, S. (2004). The empathy quotient: an investigation of adults with Asperger syndrome or high functioning autism, and normal sex differences. *Journal of Autism and Developmental Disorders, 34*, 163-175.
- Baron-Cohen, S., Wheelwright, S., Hill, J., Raste, Y., & Plumb, I. (2001). The “Reading the Mind in the Eyes” test revised version: A study with normal adults, and adults with Asperger syndrome or high-functioning autism. *Journal of child psychology and psychiatry, 42*(2), 241-251.
- Baskin-Sommers, A., Krusemark, E., & Ronningstam, E. (2014). Empathy in narcissistic personality disorder: From clinical and empirical perspectives. *Personality Disorders: Theory, Research, and Treatment, 5*(3), 323-333.
- Batson, C. D. (2009). These things called empathy: Eight related but distinct phenomena. In J. Decety & W. Ickes (Eds.), *The social neuroscience of empathy*. (pp. 3-15). MIT Press.
- Blasczyk-Schiep, S., Kazén, M., Kuhl, J., & Grygielski, M. (2011). Appraisal of suicidal risk among adolescents and young adults through the Rorschach Test. *Journal of Personality Assessment, 93*(5), 518-526.

- Bornstein, R. (2009). Heisenberg, Kandinsky, and the heteromethod convergence problem: Lessons from within and beyond psychology. *Journal of Personality Assessment, 91*(1), 1–8.
- Burke, T., Pinto-Grau, M., Costello, E., Peelo, C., Lonergan, K., Heverin, M., Hardiman, O., & Pender, N. (2020). The reading the mind in the eyes test short form (A & B): validation and outcomes in an amyotrophic lateral sclerosis cohort. *Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration, 21*(5-6), 380-388.
- Bushman, B. J., & Baumeister, R. F. (1998). Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: Does self-love or self-hate lead to violence? *Journal of Personality and Social Psychology, 75*(1), 219–229.
- Caligor, E., Levy, K. N., & Yeomans, F. E. (2015). Narcissistic personality disorder: diagnostic and clinical challenges. *American Journal of Psychiatry, 172*(5), 415-422.
- Calvete, E., & Orue, I. (2012). Social information processing as a mediator between cognitive schemas and aggressive behavior in adolescents. *Journal of abnormal child psychology, 40*(1), 105-117.
- Chen, C., & Qin, J. (2020). Emotional abuse and adolescents' social anxiety: The roles of self-esteem and loneliness. *Journal of Family Violence, 35*(5), 497-507.
- Cho, H. (2012). Examining gender differences in the nature and context of intimate partner violence. *Journal of Interpersonal Violence, 27*(13), 2665–2684.
- Coccaro, E. F., Noblett, K. L., & McCloskey, M. S. (2009). Attributional and emotional responses to socially ambiguous cues: Validation of a new assessment of social/emotional information processing in healthy adults and impulsive aggressive patients. *Journal of Psychiatric Research, 43*(10), 915–925.
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin, 115*(1), 74–101.
- Cuff, B. M. P., Brown, S. J., Taylor, L., & Howat, D. J. (2016). Empathy: A review of the concept. *Emotion Review, 8*(2), 144–153.
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology, 10*, 85.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*(1), 113-126.
- Dehning, S., Girma, E., Gasperi, S., Meyer, S., Tesfaye, M., & Siebeck, M. (2012). Comparative cross-sectional study of empathy among first year and final year medical students in

- Jimma University, Ethiopia: steady state of the heart and opening of the eyes. *BMC Medical Education*, 12, 34.
- de Vignemont, F., & Singer, T. (2006). The empathic brain: How, when and why? *Trends in Cognitive Sciences*, 10(10), 435–441.
- Dickinson, K. A., & Pincus, A. L. (2003). Interpersonal analysis of grandiose and vulnerable narcissism. *Journal of Personality Disorders*, 17(3), 188-207.
- Dziobek, I., Fleck, S., Kalbe, E., Rogers, K., Hassenstab, J., Brand, M., Kessler, J., Woike, J.K., Wolf, O.T., Convit, A., (2006). Introducing MASC: a movie for the assessment of social cognition. *Journal of Autism and Developmental Disorders*, 36, 623–636
- Dziobek, I., Rogers, K., Fleck, S., Bahnemann, M., Heekeren, H.R., Wolf, O.T., Convit, A., (2008). Dissociation of cognitive and emotional empathy in adults with asperger syndrome using the multifaceted empathy test (MET). *Journal of Autism and Developmental Disorders*, 38, 464–473.
- Erdem, A., & Sahin, R. (2017). Undergraduates' Attitudes toward Dating Violence: Its Relationship with Sexism and Narcissism. *International journal of Higher Education*, 6(6), 91-105.
- Edwards, R., & Bond, A. J. (2012). Narcissism, self-concept clarity and aggressive cognitive bias amongst mentally disordered offenders. *Journal of Forensic Psychiatry & Psychology*, 23(5-6), 620-634.
- Fan, Y., Wonneberger, C., Enzi, B., de Greek, M., Ulrich, C., Tempelmann, C., Bogerts, B., Doering, S., & Northoff, G. (2011). The narcissistic self and its psychological and neural correlates: An exploratory fMRI study. *Psychological Medicine*, 41(8), 1641–1650.
- Ferguson, F. J., & Austin, E. J. (2010). Associations of trait and ability emotional intelligence with performance on Theory of Mind tasks in an adult sample. *Personality & Individual Differences*, 49(5), 414–418.
- Fiebert, M. (2014). References examining assaults by women on their spouses or male partners: An updated annotated bibliography. *Sexuality & Culture*, 18(2), 405–467.
- Follingstad, D. R., & Edmundson, M. (2010). Is psychological abuse reciprocal in intimate relationships? Data from a national sample of American adults. *Journal of Family Violence*, 25(5), 495-508.
- Foundations Narcissus. (2018). *History Today*, 68(7), 4–5.
- Freud, S. (1914). *On narcissism: an introduction*. Read Books Ltd.
- George, D., & Mallery, M. (2010). *SPSS for Windows Step by Step: A Simple Guide and Reference*, 17.0 update (10a ed.) Boston: Pearson.

- Gewirtz-Meydan, A., & Finzi-Dottan, R. (2018). Narcissism and relationship satisfaction from a dyadic perspective: The mediating role of psychological aggression. *Marriage & Family Review, 54*(3), 296-312.
- Glover, N., Miller, J., Lynam, D., Crego, C., & Widiger, T. (2012). The Five-Factor Narcissism Inventory: A five-factor measure of narcissistic personality traits. *Journal of Personality Assessment, 94*(5), 500–512.
- Gravetter, F., & Wallnau, L. (2014). *Essentials of statistics for the behavioral sciences (8th ed.)*. Belmont, CA: Wadsworth.
- Green, A., & Charles, K. (2019). Voicing the victims of narcissistic partners: A qualitative analysis of responses to narcissistic injury and self-esteem regulation. *Sage open, 9*(2), 2158244019846693.
- Green, A., MacLean, R., & Charles, K. (2020). Unmasking gender differences in narcissism within intimate partner violence. *Personality and Individual Differences, 167*, 110247.
- Grove, R., Baillie, A., Allison, C., Baron-Cohen, S., & Hoekstra, R. A. (2014). The latent structure of cognitive and emotional empathy in individuals with autism, first-degree relatives and typical individuals. *Molecular Autism, 5*(1), 1-10.
- Hansen-Brown, A. A., & Freis, S. D. (2021). Assuming the worst: Hostile attribution bias in vulnerable narcissists. *Self and Identity, 20*(2), 152-164.
- Hendin, H. M., & Cheek, J. M. (1997). Assessing hypersensitive narcissism: A reexamination of Murray's Narcism Scale. *Journal of Research in Personality, 31*, 588–599.
- Hines, D. A., & Saudino, K. J. (2003). Gender differences in psychological, physical, and sexual aggression among college students using the Revised Conflict Tactics Scales. *Violence and Victims, 18*(2), 197–217.
- Hoffman, M. (2000). *Empathy and moral development: Implications for caring and justice*. Cambridge, UK: Cambridge University Press.
- Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology, 33*, 307–316.
- Horowitz, L. M. (1979). On the cognitive structure of interpersonal problems treated in psychotherapy. *Journal of Consulting and Clinical Psychology, 47*(1), 5–15.
- Horowitz, L. M., Alden, L. E., Wiggins, J. S. & Pincus, A. L. (2003). *Inventory of Interpersonal Problems: Manual and Sampler Set*. The Psychological Corporation, a Harcourt Assessment Company.
- Horowitz, L. M., Rosenberg, S. E., Baer, B. A., Ureno, G., Villasenor, V. S., Horowitz, L. M., Rosenberg, S. E., Baer, B. A., Ureno, G., & Villasenor, V. S. (1988). Inventory of Interpersonal Problems. *Journal of Consulting and Clinical Psychology, 56*(6), 885–892.

- Howard, V. (2019). Recognising narcissistic abuse and the implications for mental health nursing practice. *Issues in Mental Health Nursing*.
- Jonason, P. K., Lyons, M., Bethell, E. J., & Ross, R. (2013). Different routes to limited empathy in the sexes: Examining the links between the Dark Triad and empathy. *Personality and Individual Differences, 54*(5), 572-576.
- Keene, A. C., & Epps, J. (2016). Childhood physical abuse and aggression: Shame and narcissistic vulnerability. *Child Abuse & Neglect, 51*, 276-283.
- Kernberg, O. F. (1975). *Borderline conditions and pathological narcissism*. New York: J. Aronson.
- Kernis, M. H., Grannemann, B. D., & Barclay, L. C. (1989). Stability and level of self-esteem as predictors of anger arousal and hostility. *Journal of Personality and Social Psychology, 56*(6), 1013–1022.
- Klein, M. (1957). *Envy and Gratitude: A Study of Unconscious Sources*. Basic Bks.
- Kohut, H. (1966). Forms and transformations of narcissism. *Journal of the American Psychoanalytic Association, 14*(2), 243-272.
- Kohut, H. (1972). Thoughts on narcissism and narcissistic rage. *The Psychoanalytic study of the Child, 27*(1), 360-400.
- Kowalski, C. M., Rogoza, R., Vernon, P. A., & Schermer, J. A. (2018). The Dark Triad and the self-presentation variables of socially desirable responding and self-monitoring. *Personality & Individual Differences, 120*, 234–237.
- Krizan, Z., & Johar, O. (2012). Envy divides the two faces of narcissism. *Journal of Personality, 80*(5), 1415-1451.
- Krug, E. G., Dahlberg, L. L., Mercy, J. A., Zwi, A. B., & Lozano, R. (2002). World report on violence and health. *Lancet, 360*, 1083–1088.
- Lamm, C., Batson, C. D., & Decety, J. (2007). The Neural Substrate of Human Empathy: Effects of Perspective-taking and Cognitive Appraisal. *Journal of Cognitive Neuroscience, 19*(1), 42–58. <https://doi-org.libproxy.library.unt.edu/10.1162/jocn.2007.19.1.42>
- Leary, T. (1957). *Interpersonal diagnosis of personality; a functional theory and methodology for personality evaluation*. Ronald Press.
- Lee, E., & Kang, H.-K. (2020). Narcissism and perspective taking: The mediating effect of need for control. *Social Behavior & Personality: An International Journal, 48*(7), 1–7.
- Lovett, B. J., & Sheffield, R. A. (2007). Affective empathy deficits in aggressive children and adolescents: A critical review. *Clinical Psychology Review, 27*(1), 1–13.

- MacDonald, P. (2014). Narcissism in the modern world. *Psychodynamic Practice*, 20(2), 144–153.
- March, E. (2019). Psychopathy, sadism, empathy, and the motivation to cause harm: New evidence confirms malevolent nature of the Internet Troll. *Personality and Individual Differences*, 141, 133–137.
- Marissen, M. A. E., Deen, M. L., & Franken, I. H. A. (2012). Disturbed emotion recognition in patients with narcissistic personality disorder. *Psychiatry Research*, 198(2), 269–273.
- Maxwell, K., Donnellan, M. B., Hopwood, C. J., & Ackerman, R. A. (2011). The two faces of Narcissus? An empirical comparison of the Narcissistic Personality Inventory and the Pathological Narcissism Inventory. *Personality and Individual Differences*, 50(5), 577–582.
- McCullough, M. E., Emmons, R. A., Kilpatrick, S. D., & Mooney, C. N. (2003). Narcissists as “victims”: The role of narcissism in the perception of transgressions. *Personality and Social Psychology Bulletin*, 29(7), 885–893.
- Mehrabian, A. (1996). Manual for the balanced emotional empathy scale (BEES). Available from Albert Mehrabian, 1130.
- Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality*, 40, 525–543.
- Miller, J. D., Hoffman, B. J., Gaughan, E. T., Gentile, B., Maples, J., & Keith Campbell, W. (2011). Grandiose and vulnerable narcissism: A nomological network analysis. *Journal of Personality*, 79(5), 1013–1042.
- Miller, J. D., Price, J., Gentile, B., Lynam, D. R., & Campbell, W. K. (2012). Grandiose and vulnerable narcissism from the perspective of the interpersonal circumplex. *Personality and Individual Differences*, 53(4), 507–512.
- Moreno-Manso, J., Blázquez-Alonso, M., García-Baamonde, M. E., Guerrero-Barona, E., & Pozueco-Romero, J. (2014). Gender as an explanatory factor of psychological abuse in dating couples. *Journal of Social Service Research*, 40(1), 1–14.
- Morrison, I., Lloyd, D., Di Pellegrino, G., & Roberts, N. (2004). Vicarious responses to pain in anterior cingulate cortex: Is empathy a multisensory issue? *Cognitive, Affective & Behavioral Neuroscience*, 4(2), 270–278.
- Murphy, C. M., & Hoover, S. A. (1999). Measuring emotional abuse in dating relationships as a multifactorial construct. *Violence and Victims*, 14(1), 39–53.
- Murphy, C. M., Hoover, S. A., & Taft, C. (1999, November). The multidimensional measure of emotional abuse: Factor structure and subscale validity. Paper presented at the annual meeting of the Association for the Advancement of Behavior Therapy, Toronto, Canada.

- Neumann, D. L., Chan, R. C., Boyle, G. J., Wang, Y., & Westbury, H. R. (2015). Measures of empathy: Self-report, behavioral, and neuroscientific approaches. In G. J. Boyle, D. H. Saklofske, & G. Matthews (Eds.), *Measures of personality and social psychological constructs* (pp. 257-289). Academic Press.
- Peterson, C. C., Garnett, M., Kelly, A., & Attwood, T. (2009). Everyday social and conversation applications of theory-of-mind understanding by children with autism-spectrum disorders or typical development. *European Child & Adolescent Psychiatry*, 18(2), 105–115.
- Pincus, A. L., Ansell, E. B., Pimentel, C. A., Cain, N. M., Wright, A. G. C., & Levy, K. N. (2009). Initial construction and validation of the Pathological Narcissism Inventory. *Psychological Assessment*, 21(3), 365–379.
- Ponti, L., Ghinassi, S., & Tani, F. (2020). The role of vulnerable and grandiose narcissism in psychological perpetrated abuse within couple relationships: The mediating role of romantic jealousy. *The Journal of psychology*, 154(2), 144-158.
- Premack, D., & Woodruff, G. (1978). Does the chimpanzee have a theory of mind? *Behavioral and Brain Sciences*, 1(4), 515–526.
- Preston, S., & de Waal, F. (2002). Empathy: Its ultimate and proximate bases. *Behavioral and Brain Sciences*, 25(1), 1-20.
- Raskin, R., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports*, 45, 590.
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality & Social Psychology*, 54(5), 890–902.
- Ritter, K., Dziobek, I., Preißler, S., Rüter, A., Vater, A., Fydrich, T., Lammers, C.-H., Heekeren, H. R., & Roepke, S. (2011). Lack of empathy in patients with narcissistic personality disorder. *Psychiatry Research*, 187(1–2), 241–247.
- Ro, E., & Lawrence, E. (2007). Comparing three measures of psychological aggression: Psychometric properties and differentiation from negative communication. *Journal of Family Violence*, 22(7), 575–586.
- Ronningstam, E. (2009). Narcissistic Personality Disorder: Facing DSM-V. *Psychiatric Annals*, 39(3), 111–121.
- Ronningstam, E. (2010). Narcissistic personality disorder: a current review. *Current Psychiatry Reports*, 12(1), 68–75.
- Sackett, L. A., & Saunders, D. G. (1999). The impact of different forms of psychological abuse on battered women. *Violence and Victims*, 14(1), 105–117.
- Serkownek, K. (1975). Subscales for scale 5 and 0 of the MMPI. Unpublished manuscript.



- Shorey, R. C., Brasfield, H., Febres, J., Cornelius, T. L., & Stuart, G. L. (2012). A comparison of three different scoring methods for self-report measures of psychological aggression in a sample of college females. *Violence and Victims, 27*(6), 973-990.
- Stone, V. E., Baron-Cohen, S., & Knight, R. T. (1998). Frontal Lobe Contributions to Theory of Mind. *Journal of Cognitive Neuroscience, 10*(5), 640–656.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The Revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283–316.
- Stucke, T. S., & Sporer, S. L. (2002). When a grandiose self-image is threatened: Narcissism and self-concept clarity as predictors of negative emotions and aggression following ego-threat. *Journal of Personality, 70*(4), 509-532.
- Thomas, R. A., & Weston, R. (2020). Exploring the association between hostile attribution bias and intimate partner violence in college students: romantic relationships and friends with benefits. *Journal of Aggression, Maltreatment & Trauma, 29*(5), 557-576.
- Tritt, S. M., Ryder, A. G., Ring, A. J., & Pincus, A. L. (2010). Pathological narcissism and the depressive temperament. *Journal of Affective Disorders, 122*(3), 280-284.
- Urbonaviciute, G., & Hepper, E. G. (2020). When is narcissism associated with low empathy? A meta-analytic review. *Journal of Research in Personality, 89*, 104036.
- Van Buren, B. R., & Meehan, K. B. (2015). Child maltreatment and vulnerable narcissism: The roles of shame and disavowed need. *Journal of the American Psychoanalytic Association, 63*(3), 555-561.
- Vellante, M., Baron-Cohen, S., Melis, M., Marrone, M., Petretto, D., Masala, C., & Preti, A. (2013). The “Reading the Mind in the Eyes” test: Systematic review of psychometric properties and a validation study in Italy. *Cognitive Neuropsychiatry, 18*(4), 326–354.
- Whitaker, D. J., Haileyesus, T., Swahn, M., & Saltzman, L. S. (2007). Differences in frequency of violence and reported injury between relationships with reciprocal and nonreciprocal intimate partner violence. *Am J Public Health, 97*(5), 941–947.
- Wiggins, J. S., Trapnell, P., & Phillips, N. (1988). Psychometric and geometric characteristics of the revised Interpersonal Adjective Scales (IAS-R). *Multivariate Behavioral Research, 23*, 517-530.
- Wright, A. G., Lukowitsky, M. R., Pincus, A. L., & Conroy, D. E. (2010). The higher order factor structure and gender invariance of the Pathological Narcissism Inventory. *Assessment, 17*(4), 467-483.
- Xiang, Y., Wang, W., & Guan, F. (2018). The relationship between child maltreatment and dispositional envy and the mediating effect of self-esteem and social support in young adults. *Frontiers in Psychology, 9*, 1054.

Young, S. M., & Pinsky, D. (2006). Narcissism and celebrity. *Journal of Research in Personality, 40*(5), 463-471.