LOOTENS, CHRISTOPHER M., Ph.D. An Examination of the Relationships Among Personality Traits, Perceived Parenting Styles, and Narcissism. (2010)
Directed by Dr. Rosemery Nelson-Gray. 63 pp.

Narcissism has been a subject of interest to psychologists for over 100 years, yet it remains a mysterious and puzzling phenomenon. There is general agreement that a) narcissism can be viewed as a dimensional construct, and b) high levels of narcissism can be associated with impairment and result in a personality disorder diagnosis. However, relatively little research has been conducted to investigate the correlates of narcissism, which may help psychologists to understand this phenomenon more fully. Two widely theorized, yet infrequently researched, aspects of narcissism include the personality and parenting-based correlates of this phenomenon. Therefore, the goal of the present study was to further explore the correlates of narcissism, as this may provide information about the most useful targets for future research on this construct.

Two hundred fifty-three undergraduate participants completed questionnaires that assessed personality traits, perceptions of parenting styles, and narcissism. Results indicated that agreeableness (from the Five-Factor Model), sensitivity to reinforcement (from Reinforcement Sensitivity Theory), and perceptions of maternal and paternal authoritarianism (a parenting dimension characterized by coldness and control) were most strongly associated with narcissism. These findings emerged after taking into account the effects of other personality and parenting variables on narcissism. The results are discussed in terms of their implications for the diagnostic category of narcissistic personality disorder and their implications for future research.

AN EXAMINATION OF THE RELATIONSHIPS AMONG PERSONALITY TRAITS, PERCEIVED PARENTING STYLES, AND NARCISSISM

by

Christopher M. Lootens

A Dissertation Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro
2010

Approved by

_____
Committee Chair

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair _____

Committee Members _____

_____

_____

_____
Date of Acceptance by Committee

_____
Date of Final Oral Examination

ACKNOWLEDGEMENTS

I would like to express my gratitude to those who supported and encouraged me for the duration of this project and throughout my graduate training at UNCG. I would first like to thank my advisor and dissertation committee chair, Dr. Rosemery Nelson-Gray, along with dissertation committee members Dr. Tom Kwapil, Dr. Paul Silvia, and Dr. Lilly Shanahan for their help in significantly improving the quality of this project. In addition, I would like to thank my fellow lab members for their feedback, support, and help with data collection. I am also very grateful to my family and friends for their encouragement. In particular, many thanks are owed to my parents, Patrick and Therese Lootens, who have been an invaluable source of support and encouragement.

TABLE OF CONTENTS

Page

LIST OF TABLES

Page

CHAPTER I

INTRODUCTION

Narcissism is a puzzling psychological phenomenon. Rooted in classical Greek mythology, this concept emerged from the story of Narcissus, who fell in love with his reflection and was therefore fated to be transformed into the narcissus flower. The first reference to this myth within the psychological literature appeared over 100 years ago in a report by Havelock Ellis (1898), who theorized about the "autoerotic nature of man." Since that time, narcissism has continued to be a subject of interest to psychologists, although there has been substantial disagreement regarding this construct in the literature. Different theoretical perspectives, each with its own explanation of narcissism, have emerged. Further, researchers have debated the definition of narcissism and the features that most accurately characterize this phenomenon.

Two widely theorized, yet infrequently researched, aspects of narcissism include the personality and parenting-based correlates of this phenomenon. Investigation of these correlates has been of particular interest to clinical psychologists who study narcissism in its most extreme form, or what the *Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition, Text Revision* (*DSM-IV-TR*; American Psychiatric Association, 2000) refers to as "narcissistic personality disorder" (NPD). Although there is a vast theoretical (and predominantly psychoanalytic) literature on this topic, there has been to date relatively little empirical investigation into the correlates of narcissism.

The goal of the present study, therefore, was to further explore factors that are correlated with narcissism. It should be noted in advance that this study did not implement a longitudinal design and, as such, is examining only correlates and *not causal* factors in narcissism. Given the variety of definitions and conceptualizations of narcissism, this dissertation first discusses the construct as it is defined for the purposes of this study, followed by a discussion regarding the rationale for examining correlates of narcissism and why the constructs of personality and parenting have been chosen in this regard.

"Narcissism" Defined

There is general agreement in the literature that narcissism can be conceptualized as a dimensional construct. However, the most difficult challenge for narcissism researchers has been to establish a consensus regarding the features that most accurately characterize the "nomological network" for this dimensional construct. As a result, discrepancies have arisen regarding the facets that most accurately describe the continuum of narcissism. This has led to the use of inventories that measure narcissism in contrasting manners. For example, one commonly used measure of narcissism is the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), a measure which defines narcissism in terms of seven factors: authority, exhibitionism, superiority, entitlement, exploitativeness, self-sufficiency, and vanity. In other studies, the *DSM-IV-TR* diagnostic criteria for NPD (found in Appendix B) are used. It has been suggested that the NPI and diagnostically-oriented questionnaires "have substantially different nomological

networks" (Miller & Campbell, 2008, p. 470), leading to a great deal of confusion about what narcissism "really is" and how to measure it accurately.

The task of resolving these discrepancies and developing a complete and "optimal" conceptualization of narcissism that is widely-accepted would be a substantial undertaking and is beyond the scope of this paper. Nevertheless, for the purpose of the present study, the term "narcissism" is used to refer to a *multifaceted psychological characteristic* exhibited by individuals to varying degrees. This conceptualization of narcissism agrees with the perspective offered by Cronbach and Meehl (1955), who defined a construct as "a postulated attribute of people." There is also general agreement that it can be maladaptive (or "pathological") to exhibit narcissism to an extremely high degree. Much less is known, however, about what might constitute low levels of narcissism and the extent to which the low extreme of this characteristic might be maladaptive.

Despite the consensus that narcissism can be viewed dimensionally and can be maladaptive at the high extreme, disagreement remains concerning the true underlying "nomological network" for this construct. Researchers of narcissism, therefore, are typically forced to choose an operational definition for this construct that is not ideal and may only approximate what narcissism "really is." As discussed earlier, for many studies, the diagnostic criteria for NPD are used to describe the facets of this construct. Although these diagnostic criteria are imperfect and may not fully capture the "true nature" of narcissism, they do provide an operational definition and a useful framework for understanding how high levels of narcissism may be related to impairment.

Therefore, this study conceptualized *narcissism* as a multifaceted construct that is reflected by the *DSM-IV-TR* criteria for NPD.

Why Examine the Correlates of Narcissism?

Extremely high levels of narcissism can be maladaptive and pose a risk for problems in functioning, especially with regard to substantial impairment in interpersonal relationships. Ogrodniczuk et al. (2008) reported that such impairment occurs because, "highly narcissistic individuals are characterized by domineering, vindictive, and intrusive behavior…which is used to cultivate their feelings of superiority" (p. 5). A similar conclusion was drawn by Miller, Campbell, and Pilkonis (2008), who reported that high levels of narcissism were related to an overall index of impairment, as well as specific indices including impairment in romance, work, social life, and causing distress to significant others.

Despite the fact that high levels of narcissism can create serious interpersonal problems for an individual, very little is known about the factors that are correlated with narcissism. Most of the literature on this topic is anecdotal, speculative, and lacking empirical support. Although scant, two areas of the literature that *have* generated testable hypotheses regarding the factors correlated with narcissism include personality research and parenting research. Personality research has been useful in clarifying the relationship between narcissism and well-established personality traits, which is likely to aid in constructing a more accurate nomological network for this construct. Parenting research has provided information regarding the parenting styles and behaviors that may be associated with the expression of narcissism, which is likely to aid ultimately in

understanding how narcissism develops over time. The following sections provide a rationale for using these dimensions to understand narcissism more fully and elaborate upon specific research findings in more detail.

Narcissism and Well-Established Models of Personality

Recently, it has been suggested that it may be beneficial to use well-established models of "normal" personality to understand behavior that is consistent with personality disorder diagnoses (e.g., Costa & McCrae, 2005; Widiger, Simonsen, Sirovatka, & Regier, 2006). Given that high levels of narcissism, when combined with impairment, can result in a personality disorder diagnosis, it follows that it may be useful to examine the relationship between well-established personality traits and narcissism in order to more fully understand this phenomenon.

Currently, there is only a small literature concerning the relationship between personality traits and narcissism. Nevertheless, two prominent theories of personality have been examined in this regard: Reinforcement Sensitivity Theory (RST) and the Five Factor Model of personality (FFM). Previous research has indicated that, although these two theories of personality are related, they are also distinct in notable ways (see Mitchell et al., 2007, for a comprehensive review). The most important distinction is that the FFM was derived from the lexical tradition (i.e., using language to describe personality), whereas RST was developed as a biologically-based theory of personality. Therefore, both RST and the FFM may be useful in furthering our understanding of narcissism, but in different ways. More specifically, the FFM may be helpful for identifying the features that most accurately describe narcissism, whereas RST may help to describe this

phenomenon *and* point to biologically-based aspects of narcissism. The next sections examine each of these theories in turn, first by providing a brief background of the theory, and second by examining more specifically the relationship of the theory to narcissism.

Reinforcement Sensitivity Theory. RST (Gray, 1970, 1982, 1991; Gray & McNaughton, 2000) is a theoretical and biologically-based account of personality that proposes specific connections with neural and behavioral processes. The two primary dimensions subsumed under this theory include: sensitivity to reinforcement (SR, sometimes referred to as the Behavioral Approach System, or BAS), and sensitivity to punishment (SP, sometimes referred to as the Behavioral Inhibition System, or BIS). Individual differences in SR and SP are theorized to underlie two fundamental dimensions of personality: impulsivity and anxiety.

SP represents apprehensive motivation and is sensitive to conditioned signals of punishment, frustrative nonreward, and novelty. Because of this, research has indicated that individuals who are very high in SP are likely to exhibit, for example, characteristics of anxiety (e.g., Hundt et al., 2007). Specific biological underpinnings of the BIS include the septo-hippocampal system and its connections to the frontal cortex, the locus coeruleus, and the raphe nucleus (Gray & McNaughton, 2000). In contrast, SR is appetitive and sensitive to conditioned signals of reward. When stimulated by potential reward, the BAS activates the dopamine system in various brain circuits (Reuter et al., 2004) which stimulates a positive emotional reaction. The ventral tegmental area has been implicated in the BAS (Depue & Collins, 1999), as well as the basal ganglia, ventral

striatum, and the dopaminergic fibers connecting the mesencephalon and mesolimbic system to the basal ganglia and thalamic nuclei (Harmon-Jones et al., 2002).

Theoretically, normal variation in these traits lies on a continuum with psychopathology such that individuals at the extremes of the SR and SP dimensions are hypothesized to be at increased risk for developing psychopathology (Pickering & Gray, 1999). Consequently, for the purposes of this study, the question becomes: what dimensions of RST are most likely correlated with narcissism?

From a theoretical perspective, narcissism is more likely associated with SR than with SP. Narcissism involves a rather extreme desire for and sensitivity to rewarding interpersonal experiences. The excessive seeking of praise, admiration, and recognition (all generally considered to be rewarding experiences) is a hallmark of narcissism. Furthermore, the higher the degree to which an individual exhibits narcissism, the more likely he or she is to take advantage of others in order to achieve personal gains. Vazire and Funder (2006) have proposed that impulsivity is at the core of explaining this manipulative and "self-defeating" interpersonal behavior of individuals high in narcissism. Given that SR is considered to be a dimension that reflects impulsivity, it seems worthwhile to review the (small) literature on RST and narcissism and examine whether there is a relationship between these constructs.

RST and narcissism. Only two published studies have been conducted to examine the specific relationship between RST variables and narcissism. First, using an undergraduate sample, Pepper, Maack, Scharf, and Birgenheir (2007) examined the relationship between the BIS/BAS scales (Carver & White, 1994) and the Structured

Clinical Interview for Axis II Disorders (SCID-II; First, Gibbon, Spitzer, Williams, & Benjamin, 1997). These authors reported a significant and positive correlation between self-reported characteristics of narcissism and BAS, but no significant relationship between narcissism and BIS. A second study, conducted by Foster and Trimm (2008), also used an undergraduate sample and reported very similar results. According to these authors, individuals high in narcissism display an *unmitigated approach orientation* such that they are "strongly motivated toward desirable outcomes and relatively unmotivated by the avoidance of undesirable outcomes" (p. 1015).

These studies suggest a relationship between narcissism and SR; however, it has been suggested that future research is needed to replicate and clarify the associations between RST dimensions and narcissism (Foster & Trimm, 2008). RST, however, is not the only theory of personality that has been applied to narcissism. In addition to RST, the FFM is another model of personality that has both theoretical and empirical connections to narcissism. The next section will outline the theoretical and empirical basis for the relationship between FFM traits and narcissism.

The five-factor model of personality. There are slight variations regarding the five-factor model of personality (FFM), although the most widely cited is that proposed by McCrae and John (1992). The model proposed by these authors describes a taxonomy of personality traits in terms of five broad dimensions: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Neuroticism is the likelihood to experience unpleasant emotions (e.g., depression, anxiety) easily and is sometimes referred to as emotional instability; emotional stability, therefore, represents

the opposite end of this spectrum. Extraversion describes a tendency to show energy, positive emotions, warmth, and the desire to seek stimulation and the company of others rather than keep to oneself and exhibit passive or withdrawn behavior. Openness (to experience) includes appreciation for art, emotion, adventure, unusual ideas, imagination, curiosity, and variety of experiences versus close-mindedness and constricted or predictable behavior. Agreeableness is the capacity to be compassionate, cooperative, and friendly rather than exploitative, arrogant, and antagonistic towards others. Finally, conscientiousness refers to a tendency to show self-discipline, act dutifully, and aim for achievement rather than display disorganization, carelessness, and undependability. In the variation of this theory proposed by Costa and McCrae (1992), each of these broader five domains are also composed of six facets which provide more specific information about the traits associated with each domain. For example, the facets of the agreeableness domain include: trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness (Costa & McCrae, 1992).

As is the case with RST, it has been proposed that the traits described by the FFM might exhibit a specific pattern of associations with narcissism. Given the descriptions above, the trait most likely to exhibit a relationship with narcissism is agreeableness. Low levels of agreeableness (or high levels of antagonism) tend to be associated with arrogant, exploitative, boastful, callous, and manipulative behavior (Mullins-Sweatt & Widiger, 2006). This description overlaps quite strikingly with narcissism as it is defined by the diagnostic criteria for NPD; therefore, the next section will examine the extent to which the literature has supported this association.

The FFM and narcissism. Research investigations into the relationship between narcissism and the FFM have produced findings are that are mixed and appear to vary based on the measure of narcissism that is used. For example, Trull and McCrae (2002) summarized studies that have examined the relationship between the NPI and the FFM. They reported that NPI narcissism is negatively related to neuroticism and agreeableness and positively related to extraversion. This finding was replicated in a recent study conducted by Miller and Campbell (2008).

However, other studies have investigated the relationship between the FFM and narcissism as defined by different sets of *DSM* criteria and found discrepant results. Saulsman and Page (2004), in a meta-analysis of this literature, indicated that more diagnostically-oriented measures of narcissism (such as the Personality Diagnostic Questionnaire, or PDQ-4; Hyler, 1994) tend to be very consistently and negatively associated with agreeableness only. The relationships between diagnostically-oriented measures of narcissism and neuroticism, extraversion, conscientiousness, and openness are less clear because findings tend to be mixed in that regard. These findings were further explored in studies by Miller and Campbell (2008) and Samuel and Widiger (2008). Both of these studies indicated that agreeableness, and all six facets of agreeableness, were negatively associated with narcissism as defined by measures based on NPD diagnostic criteria.

In summary, the relationship between FFM traits and narcissism varies depending upon the definition and measure of narcissism used. When narcissism is defined by the NPI (as is typically the case in social-personality research), it results in a profile

characterized by low neuroticism, low agreeableness, and high extraversion. When narcissism is defined by a more diagnostically-oriented measure, such as the PDQ-4, a negative association with agreeableness tends to be the most consistent finding.

Clearly, regardless of the measure of narcissism used, the FFM dimension of agreeableness appears to exhibit the most robust association with narcissism. This is also consistent with the findings of a recent longitudinal study, which claimed that "interpersonal antagonism" as measured during preschool ages (in a community sample) was predictive of narcissism at ages 14 and 18 (Carlson & Gjerde, 2009).

Overall, it appears that the some of the personality dimensions proposed by RST and the FFM may be useful in furthering our understanding of narcissism. One limitation of these prior studies, however, is that they have examined the relationship of narcissism to these personality models separately. That is, studies have either examined the relationship between RST and narcissism *or* the relationship between the FFM and narcissism. If the goal of this research is to discover which traits exhibit *truly unique* relationships with narcissism, it might be useful to consider and examine these theories simultaneously. To the extent there is an emphasis on using dimensional models of personality to understand psychopathology, further investigation of these traits in relation to narcissism is warranted.

Does Personality Provide the Only Clues to Narcissism?

Personality traits provide one source of information about narcissism; however, it is unlikely that personality traits *alone* provide a comprehensive understanding of any construct of interest, including narcissism. Rather, personality traits represent several of

many possible factors that are associated with narcissism. Previous research has indicated that simultaneous examination of both internal (i.e., personal) and external (i.e., environmental) variables is likely to facilitate a broader understanding of narcissism. Parenting variables represent another area of the literature that has been implicated in this regard. Therefore, the next section provides an overview of the rationale for examining parenting variables in relation to narcissism and the research conducted thus far.

Parenting Styles and Narcissism

Earlier, it was noted that one cause for confusion in the literature on narcissism is that several different theoretical perspectives have emerged. Namely, psychoanalytic theories, social learning theories, and cognitive theories explaining the development of narcissism have been proposed. Despite rather obvious differences regarding the conceptualization of narcissism in these theories, it is quite notable that each of them has emphasized the role of *parenting style* and the relationship between parenting and narcissism. In fact, Horton, Bleau, and Drwecki (2006) stated that, "nearly all perspectives on narcissism implicate parental behavior in some way" (p. 348). It follows that, in addition to personality, it would likely be worthwhile to examine parenting style as a potential correlate of narcissism as well.

Among each of the theories referenced above, there has been substantial disagreement in terms of the relationship between parenting and narcissism. More specifically, it seems that "competing hypotheses" have been proposed in this regard. One subset of theorists (namely, social learning and cognitive theorists) claims that narcissism is associated with an overly permissive parental style. According to these

theories, the more indulgent and permissive the parents, the higher the level of narcissism that will be exhibited by the individual who was raised by those parents. This perspective has been heavily emphasized by Millon (1996), who has proposed that individuals who are high in narcissism were treated as special and given excessive attention as children. Ronningstam (2005) further suggested that this relationship exists because the lack of appropriate limits and feedback combined with evidence of being special, idealized, or admired, paves the way for a sense of grandiosity and entitlement.

A second subset of theorists (operating predominantly from a psychoanalytic standpoint) claims the opposite: that narcissism is associated with a cold and controlling parental style. According to this theory, the more cold and controlling the parents, the higher the level of narcissism that will be exhibited by the individual who was raised by those parents. This perspective has been heavily emphasized, for example, by Kernberg (1975). In Kernberg's view, narcissism develops as a result of excessive parental coldness, control, and an emotionally invalidating environment. Theoretically, because of his or her experiences with cold and controlling parents, the child "defensively withdraws" and "forms a grandiose inner self-representation." This self-representation, which combines aspects of the real child, the fantasized aspects of what the child wants to be, and the fantasized aspects of an ideal/loving parent, serves as an internal refuge from the experience of the environment which is harsh and overly controlled. (See Kernberg, 1975, for a more comprehensive review of this theory).

Clearly, there is disagreement from a theoretical perspective about the relationship between parenting and narcissism. Two competing hypotheses having

emerged: one suggesting that permissive parenting is associated with narcissism, the other suggesting that cold and controlling parenting is associated with narcissism. Empirical studies of these hypotheses (of which there are only a few) have, oddly enough, provided support for both perspectives.

On one hand, three studies (conducted by Watson, Little, & Biderman, 1992; Ramsey, Watson, Biderman, & Reeves, 1996; and Horton, Bleau, & Drwecki, 2006), all using undergraduate samples, reported that retrospective reports of parental permissiveness were positively associated with narcissism. On the other hand, one study (Miller & Campbell, 2008), also using an undergraduate sample, indicated that narcissism was positively associated with retrospective reports of parenting that was characterized by coldness and intrusiveness.

These discrepant results might easily (and reasonably) lead to confusion on the part of anyone who is seeking to understand the relationship between narcissism and parenting. But this confusion can be resolved by taking into consideration the *definition and measure of narcissism* used in each of these studies. The three studies that reported a relationship between parental permissiveness and narcissism all used the NPI which, to review, defines narcissism in a manner that is different than the *DSM-IV-TR*. The one study that reported a relationship between narcissism and cold/intrusive parenting used the PDQ-4, a measure of narcissism that *is* consistent with the *DSM-IV-TR*. In summary, when narcissism is defined by the NPI, it tends to be associated with recollections of permissive parenting. Alternatively, when narcissism is measured according to the *DSM-IV-TR* criteria, it is associated with recollections of cold and controlling parenting.

Although the measures of narcissism have varied in these studies, perceptions of parenting have typically been conceptualized according to Baumrind's (1971) proposed permissive, authoritarian, and authoritative parenting styles. In this theory, permissiveness describes the extent to which the parent granted autonomy, exhibited uncontrolling behavior, and used a minimum of punishment. Authoritarianism reflects the tendency of the parent to exhibit cold and controlling behavior and value unquestioning obedience to authority. Finally, authoritativeness describes the extent to which the parent was flexible and implemented discipline in a manner that was warm and accompanied by reasoning. A measure called the Parental Authority Questionnaire (PAQ; Buri, 1991) has been developed to assess these styles and is most commonly used in studies examining the relationship between perceptions of parenting and narcissism.

From a theoretical and empirical standpoint, it becomes clear that any study investigating the correlates of narcissism would be remiss to exclude parenting variables. But there is one limitation of these previous studies on parenting and narcissism that has not yet been addressed. The four studies referenced earlier reported associations between narcissism and "parenting" as defined in a general sense. That is, the participants in these studies provided information about their parents in general, without regard to any differences between mothers and fathers. This could be considered a limitation of these previous studies, as mothers and fathers are usually not identical to one another in their behavior and may differ in terms of how they are perceived by their children. In order to increase specificity, future studies on this matter would benefit from examining maternal

and paternal behavior separately with regard to narcissism, rather than "parenting" as defined in a general sense.

Are There Interactions Among Variables of Interest?

A review of the literature suggests that there may indeed be meaningful relationships among personality traits, perceived parenting styles, and narcissism. For example, as outlined previously, it is likely that the personality dimensions of SR and agreeableness are associated with narcissism. However, the exact manner in which these traits are related to narcissism has been relatively unexplored in previous research. This begs the question of whether these traits are related to narcissism independently, or whether they interact with one another to predict narcissism. Relatedly, if both maternal and paternal authoritarianism are associated with narcissism (as defined by the *DSM-IV-TR*), do these parenting styles operate in isolation, or do they interact with one another? Previous literature has not been able to provide specific answers to these questions; however, exploratory analyses of this nature might be useful in developing a more comprehensive understanding of these relationships.

Purpose of the Present Study

High levels of narcissism can be associated with substantial impairment, especially with regard to interpersonal functioning, and result in a personality disorder diagnosis. Nevertheless, relatively little is known about the factors that are correlated with narcissism and that would help us understand this construct more fully. A review of the literature suggests that well-established personality traits and parenting styles provide

a useful framework for understanding the correlates of narcissism; however these dimensions have only been considered in separate regards thus far.

Therefore, the purpose of the present study was to expand upon prior research by examining simultaneously the relationships among personality traits, perceptions of parenting styles, and narcissism. A study of this nature may provide helpful information about the personality and parenting factors that exhibit *unique* relationships with narcissism and that should comprise likely targets of future research in this area.

Hypotheses

The following hypotheses were proposed regarding the relationship between personality traits and narcissism:

1) Narcissism will be significantly and positively associated with SR. This hypothesis is consistent with prior research findings and predicated on the idea that narcissism is associated with seeking excessive reinforcing stimuli from the environment, such as admiration and praise.
2) Narcissism will be significantly and negatively associated with agreeableness. This hypothesis is also consistent with prior findings and the notion that individuals high in narcissism tend to exhibit negative or antagonistic interpersonal behavior, such as exploitation and arrogance.

Previous research has indicated that narcissism (as defined by the *DSM* criteria) is associated with "parental" authoritarianism, but prior studies have not examined this relationship separately for each parent. Therefore, no specific hypotheses about the relationship between perceived parenting styles and narcissism were formed, as these

analyses were considered to be exploratory in nature. Interaction analyses for personality traits and parenting styles were conducted in a purely exploratory fashion as well.

CHAPTER II

METHOD

Participants

Male and female undergraduate students (n = 253) were recruited from the University of North Carolina at Greensboro introductory psychology subject pool to participate in the study. Data collected from 47 of these participants were excluded from analyses due to the following exclusionary criteria, which had been identified in advance: a) participants age 17 or younger were not allowed to participate (as individuals this age could not do so without parental consent), b) participants who scored a three or higher on the Infrequency Scale (see description in next section) were excluded (n = 26), and c) participants who provided excessive missing data (defined as failing to complete 5% or more of the items on any one questionnaire) were excluded (n = 21). A fourth pre-identified exclusionary criterion was failure to complete the parenting questionnaire for both a mother figure and a father figure, although no participants were excluded for this reason. Therefore, the final sample consisted of 206 undergraduate participants.

Participant demographics are reported in Table 1. As can be seen, the study included participants who were predominantly female (75.7%) and Caucasian (58.3%) or African-American (29.1%), which is consistent with the demographic composition of the university. The mean age of participants was 18.81 years (SD = 1.75).

Materials

Demographic Form. Participants provided basic demographic information, including age, gender, family income, and race on a demographic questionnaire. As one of the study measures assessed the participant's perceptions of his or her parents, this form also asked the respondent to indicate whom they considered their mother and father for the purposes of this study. As can be seen in Table 2, participants reported predominantly (86.4%) about their experiences with a biological mother and biological father.

Infrequency Scale. The Infrequency Scale (IFS; Chapman & Chapman, 1986) is a 13-item scale designed to assess whether a participant has responded in a random manner to the study questionnaires. IFS items were intermixed among the SPSRQ items (described below) to provide an index of random responding. An example IFS item is, "Can you remember a time when you talked with someone who wore glasses?" An answer of "no" to this item is highly unlikely and indicates a potentially random response style; therefore, scores of three or higher on this measure were identified as an exclusionary criterion.

Wisconsin Personality Disorder Inventory – Fourth Edition (Narcissism Subscale). The WISPI-IV (Klein, Benjamin, Rosenfeld, & Treece, 1993) is a 214-item self-report measure of personality disorder characteristics rated on a 9-point Likert scale. The narcissism scale consists of 18 items. This measure was selected because it conforms directly to the *DSM-IV-TR* criteria for personality disorders, which maps on well to the conceptualization of narcissism for this study. Several studies (e.g., Barber &

Morse, 1994; Klein et al., 1993) have established the content, concurrent, and discriminant validity of this measure. Further, the WISPI scales have demonstrated good to excellent internal consistency; for example, reliability coefficients for the scales of the WISPI-IV ranged from .81 to .95 in a mixed sample of student volunteers and psychiatric outpatients (Klein, Benjamin, Rosenfeld, & Treece, 1993).

Big Five Inventory. The BFI (John, Donahue, & Kentle, 1991) is a 44-item measure of the FFM personality factors. On this measure, the five factors are referred to as Emotional Stability, Agreeableness, Conscientiousness, Extraversion, and Openness. All items consist of short phrases that are relevant to each of the five personality constructs and are rated on a 5-point Likert scale. John and Srivastava (1999) reported reliabilities for each of the subscales that ranged from .75 to .80. In addition, evidence for the validity of this measure is provided by McConochie (2007).

Sensitivity to Punishment and Sensitivity to Reward Questionnaire. The SPSRQ (Torrubia et al., 2001) is a 48-item self-report measure designed to assess a participant's levels of SP and SR. The SPSRQ has demonstrated good internal consistency, test-retest reliability, and convergent validity in previous research (e.g., Caseras, Avila, & Torrubia, 2003). The 24-item Sensitivity to Punishment (SP) subscale reflects BIS functioning and the 24-item Sensitivity to Reward (SR) subscale reflects BAS functioning.

Parental Authority Questionnaire. The PAQ (Buri, 1991) is a 30-item questionnaire designed to measure perceptions of one's parents using Baumrind's (1971) proposed permissive, authoritarian, and authoritative parenting styles. Participants are asked to respond based on their experiences with their parents "while they were growing

up at home." Given the study hypotheses that authoritarianism (as opposed to permissiveness) for mothers and fathers would be associated with narcissism, this was considered an ideal measure with regard to parenting. There are ten items per scale, and participants responded to each of the 30 items on a 5-point Likert scale. Evidence for the convergent and divergent validity of this measure is presented by Buri (1991). For the present study, a separate version of this measure for the mother figure and father figure was completed.

Procedure

Prior to data collection, this study was approved by the Institutional Review Board of the university. Participants signed up through a website called Experimetrix to complete the study in group sessions. This website is used by the psychology department of the university to coordinate subject pool participation. Potential participants log in and can then view a variety of experiments to choose from. Once they have selected an experiment, participants sign up and choose the day and time of a session to attend. For the present study, sessions consisted of groups that ranged from 2 to 23 participants. Upon arrival to the study, participants were asked to be seated and signed consent forms (Appendix C) which provided an overview of the study, outlined the risks and benefits of participation, and informed them of their rights to confidentiality and to withdraw from the study at any time. As a group, participants then received a standardized set of instructions (Appendix D) for completing the questionnaire packets. The order of the questionnaires in the packets was randomized to control for order effects. Participants completed each of the measures in their packet, and then were debriefed regarding the

purpose of the study (see debriefing form in Appendix E). Upon completion, all participants received course credit for their time.

CHAPTER III

RESULTS

Preliminary Analyses

Descriptive statistics for all scales are reported in Table 3. Cronbach's alpha was calculated in order to examine the internal consistency of each scale, which ranged from a low of .74 (low but acceptable range) for SR, to a high of .89 (good range) for paternal authoritarianism and paternal authoritativeness. The normality of the data was also assessed and, consistent with the guidelines provided by Kline (2005), it was found that the scores for all scales were normally distributed (e.g., the skewness and kurtosis statistics were $< \pm 1$ for all scales). The distribution of narcissism scores, in particular, was of interest as these scores were to be used as the criterion variable in multiple regression analyses. It should be noted that the range of narcissism scores in the present study did not cover the entire possible range provided by the WISPI-IV. The minimum narcissism score on the WISPI-IV is zero, whereas the maximum possible score is 162. In the present sample, narcissism scores ranged from 2 - 120. Therefore, although normally distributed, the narcissism scores in the present sample were somewhat truncated, which would be expected for a non-clinical sample.

Finally, each of the demographic variables (gender, race, family income, and age) was assessed in terms of its relationship to narcissism scores. Using a *t*-test for independent samples, it was found that there were no significant differences in narcissism

scores for males versus females, $t(206) = 1.20$, $p = .23$. Further, two separate one-way analyses of variance (ANOVAs) indicated that there were no significant differences in narcissism scores for different groups based on race ($F = .92$, $p = .45$) or family income ($F = 1.69$, $p = .15$). Age, however, was significantly and negatively correlated with narcissism in the current sample, ($r = -.17$, $p = .02$).

Pearson Correlations

As a preliminary analysis, Pearson correlations between each of the study variables were calculated. The intercorrelations between each of the factors assessed by the Big Five Inventory were highly consistent with the intercorrelations between these factors reported by other researchers (e.g., Benet-Martinez & John, 1998). For example, agreeableness and conscientiousness (as measured by the BFI) have been shown to be positively correlated, and this was the case in the present study ($r = .45$, $p < .01$). Additionally, SP and SR were not correlated with one another ($r = .02$, $p = .83$), which is consistent with theory and with previous research findings (e.g., Torrubia et al., 2001). Further, the pattern of intercorrelations between each of the parenting variables was identical to the expected pattern of intercorrelations reported by the author of the PAQ (Buri, 1991). For example, permissiveness and authoritarianism were negatively correlated in the present study (for mothers: $r = -.35$, $p < .01$; for fathers: $r = -.39$, $p < .01$).

As hypothesized, narcissism was negatively correlated with agreeableness ($r = -.31$, $p < .01$), positively correlated with SR ($r = .42$, $p < .01$), and positively correlated with perceptions of maternal ($r = .21$, $p < .01$) and paternal ($r = .32$, $p < .01$)

authoritarianism. In addition to these predicted associations, however, narcissism was found to be significantly associated with other personality traits as well. More specifically, narcissism was shown to be negatively correlated with conscientiousness (r = -.14, p < .05) and emotional stability (r = -.22, p < .01), and positively correlated with SP (r = .18, p < .05).

Given the substantial degree of intercorrelation among the various personality and parenting dimensions, Pearson correlations alone make it difficult to examine the unique contributions of any one variable. In order to more fully examine and confirm the hypotheses that agreeableness, SR, maternal authoritarianism, and paternal authoritarianism would each exhibit a *unique association* with narcissism, multiple regression analyses were conducted.

Multiple Regression Analyses

Three separate multiple regression analyses were conducted using WISPI-IV narcissism scores as the criterion variable. The first regression was considered the primary analysis and included all relevant personality and parenting variables. The second and third regression analyses were purely exploratory and were conducted in order to examine whether interactions among personality traits (second regression) and parenting styles (third regression) were useful in predicting narcissism.

Multiple Regression One. For the first regression analysis, all seven personality variables assessed (five from the FFM, two from RST) were included in the model. Given the hypotheses that SR and agreeableness would be *uniquely* associated with narcissism scores, it was considered necessary to include the other personality variables as

covariates in this multiple regression analysis so as to statistically control for their effects. The same was true for the parenting variables. All three parenting variables (permissiveness, authoritarianism, and authoritativeness) for each parent were included in the first regression model in order to examine whether perceptions of maternal and paternal authoritarianism, as predicted, would each exhibit a unique association with narcissism scores while controlling statistically for the effects of the other parenting and personality variables.

The result of the first multiple regression analysis can be seen in Table 4. The model accounted for approximately 34% of the total variance in narcissism scores, which could be considered a medium effect size ($f^2 = .52$). As hypothesized, with regard to personality variables, agreeableness and SR were both found to be uniquely associated with narcissism scores. With regard to parenting variables, as hypothesized, perceptions of maternal and paternal authoritarianism were also found to be uniquely associated with narcissism scores. These effects were found to be significant after taking into account the effects of other personality and parenting variables.

Given that these personality and parenting variables were significantly correlated with one another, it was determined necessary to examine whether multicollinearity was exhibiting an undue influence on these results. According to Neter, Kutner, Wasserman, and Nachtsheim (1996), the largest variance inflation factor (VIF) value among all predictors in a multiple regression is often used to indicate the severity of multicollinearity. These authors further reported that a maximum VIF value in excess of ten is frequently taken as an indication that multicollinearity may be unduly influencing

the least squares estimates. As can be seen in Table 5, the maximum VIF value was 1.59, which is taken to indicate that the degree of multicollinearity should not disrupt the interpretation of these results.

Multiple Regression Two. As a purely exploratory analysis, a second regression was conducted in order to determine whether SR and agreeableness would exhibit a significant interaction in the prediction of narcissism scores. Personality variables were mean-centered for this analysis, as recommended by Cohen, Cohen, West, and Aiken (2002), and entered into the first step of the regression. The interaction term for SR and agreeableness was entered into the second step. As can be seen in Table 5, the interaction was not significant. The personality variables (Step 1) accounted for 26.5% of the variance in narcissism ($f^2 = .36$), and the interaction term (Step 2) accounted for only an additional .4% of variance in narcissism scores (total $f^2 = .37$).

Multiple Regression Three. As another exploratory analysis, a third regression was conducted in order to determine whether perceptions of maternal and paternal authoritarianism would interact to predict narcissism scores. The six parenting variables were also mean-centered for this analysis and entered into the first step of the model. The interaction term for maternal authoritarianism and paternal authoritarianism was entered in the second step. As can be seen in Table 6, the parenting variables alone accounted for 13.9% of the variance in narcissism scores ($f^2 = .16$). The interaction term was not significant and accounted for 0% of the variance in narcissism scores above and beyond the parenting variables alone.

CHAPTER IV

DISCUSSION

Although narcissism has been defined and conceptualized in different ways, the present study defined narcissism as a multifaceted and dimensional psychological construct that is reflected by the *DSM-IV-TR* diagnostic criteria for NPD. The goal of this study was to examine which personality traits and perceived parenting styles exhibit a unique relationship with this construct when considered simultaneously, as this has not been the case in previous research. It should be noted that "unique" here means that a relationship with narcissism is found after controlling for other relevant variables. These findings may not, however, be unique to narcissism per se, as these variables may be correlated with other patterns of personality-disordered behavior as well.

As hypothesized, two personality traits emerged as being most closely associated with narcissism scores: sensitivity to reinforcement (SR; analogous to BAS) from RST, and agreeableness from the FFM. More specifically, SR showed a strong positive association with narcissism, whereas agreeableness showed a strong negative association with narcissism. These findings emerged after taking into account the effects of other personality variables, including: emotional stability, conscientiousness, openness, extraversion, and sensitivity to punishment (SP; analogous to BIS). SR and agreeableness, however, were not found to exhibit a significant interaction in predicting narcissism scores.

With regard to parenting, it was hypothesized that perceptions of maternal and paternal authoritarianism would be uniquely and positively associated with narcissism scores. This hypothesis was confirmed. Both maternal and paternal authoritarianism scores were found to be significantly associated with narcissism, even after taking into account the perceptions of other parenting styles, including permissiveness (a dimension characterized by warmth and a minimum of control) and authoritativeness (a dimension characterized by flexibility and use of reasoning with discipline). Maternal and paternal authoritarianism, however, did not interact to predict narcissism scores.

Interpretation of Findings

Upon considering the results of the present study, one should first acknowledge the limitations of the study design. Most importantly, because the data were collected at one point in time, these results can only give us information about the associations among personality traits, perceptions of parenting, and narcissism. It is not possible to draw conclusions about whether personality traits and perceived parenting styles, for example, exhibit a *causal* relationship to narcissism.

In addition, with regard to the parenting variables, the retrospective nature of data collection should be considered. Participants completed questionnaires that assessed their *perceptions* of their parents' behavior, and therefore it is impossible to know (from these data) whether the parents actually behaved in these ways, whether the parents were only perceived in such ways, or both.

After carefully considering these aspects of the study design, however, it should be noted that this is the first study that has examined the relationship between personality traits and narcissism by taking into account *more than one* theory of personality. Previous studies of this nature have considered either RST *or* the FFM in relation to narcissism. This study demonstrated that personality dimensions associated with each of these theories are important in terms of understanding this psychological phenomenon.

The use of multiple regression in this study was considered ideal because it allows for the examination of unique contributions to narcissism scores. The results confirmed that agreeableness is negatively associated with narcissism (as defined by the diagnostic criteria for NPD) even after taking into account the effects of other personality variables.

The finding that agreeableness is negatively associated with narcissism makes sense from a theoretical perspective. Low agreeableness (sometimes referred to as *antagonism*) is characterized by arrogant, callous, and manipulative behavior (Mullins-Sweatt & Widiger, 2006), as is narcissism according to the *DSM-IV-TR* diagnostic criteria. However, this relationship between agreeableness and narcissism warrants further exploration. More specifically, one is left to wonder: does low agreeableness "come first" and cause narcissism to develop? Are low agreeableness and narcissism the same thing? What is the exact nature of the relationship between these two constructs?

These questions are difficult to answer and cannot be fully addressed using a cross-sectional design (as is the case in the present study). However, one might conclude, due to this consistently reported relationship, that low agreeableness at least

constitutes one central component of narcissism. Being low in agreeableness *only* does not constitute narcissism, as low levels of agreeableness are associated with other forms of psychopathology, for example, borderline and antisocial personality disorders (Mullins-Sweatt & Widiger, 2006).

According to the results of the present study, high levels of sensitivity to reinforcement are also associated with narcissism. This also makes sense from a theoretical perspective. Individuals high in narcissism, by definition, exhibit a strong desire for social reinforcement in order to bolster a superior sense of sense. This often takes the form of seeking praise, soliciting admiration, and behaving in ways that are geared toward being recognized as special or unique. Recent studies have indicated that, for individuals high in narcissism, this occurs to such an extent that social relationships are eventually disrupted or impaired (Ogrodniczuk et al., 2008).

The exact nature of the relationship between SR and narcissism also needs to be further explored. The same questions raised regarding the relationship between agreeableness and narcissism could be applied to SR as well. Are high levels of SR and narcissism the same thing? Do high levels of SR (which are thought to be biologically-based) "come first" and cause narcissism to ultimately develop? These are also questions that merit further inquiry because they cannot be adequately addressed with a cross-sectional design. However, based on the results of this study, it can be concluded that SR is at least strongly associated with narcissism in some way.

The results also indicated that SR and agreeableness do not interact in the prediction of narcissism. In other words, SR is associated with narcissism regardless of agreeableness, and vice versa. Therefore, SR is associated with narcissism and agreeableness is associated with narcissism, but these variables appear to exert their influences independently of one another with regard to narcissism.

Given the results of this study (and others), it becomes clear that basic dimensions of personality can add to our understanding of narcissism. But the literature has suggested that, in addition to personality, it may also be useful to consider environmental variables that contribute to narcissism. In this regard, parenting styles have been proposed as important variables to consider.

This study was also the first to consider parenting variables *in addition to* personality with regard to narcissism. Previous research studies on these matters have considered personality and parenting separately. Therefore, it was unknown whether parenting was important after taking into account the effects of personality, and vice versa. This study provides evidence that, when considered simultaneously, both personality and perceptions of parenting are associated with narcissism.

In this study, Baumrind's theory of parenting styles was implemented. This theory of parenting styles is frequently cited for its multidimensional character, its typological clarity, and its empirical efficacy (Buri, 1991). Moreover, Baumrind's theory of parenting styles provides an ideal context for the hypotheses of the current study, because both permissive parenting *and* cold and controlling parenting (termed

authoritarianism) have been shown to be related to narcissism. This study found that perceptions of maternal and paternal authoritarianism appear to be the most relevant for understanding narcissism (as defined by a diagnostically-oriented measure), even after taking into account the effects of parental permissiveness and authoritativeness. These dimensions, however, did not interact with one another in order to predict narcissism, indicating that each of these dimensions is independently associated with narcissism.

This study was also the first to investigate differential perceptions of parenting for mothers and fathers separately. Prior studies have considered only perceptions of "parenting" on the whole, leaving room for uncertainty about whether maternal or paternal behavior is more closely associated with narcissism. By examining the perceptions of maternal and paternal behavior separately, it can more accurately be confirmed that the dimension of authoritarianism is relevant on the part of both parents, at least with regard to narcissism. It has been suggested that, "the actual parenting behavior to which an individual is exposed will largely affect that individual in the way and to the extent that he or she perceives that behavior" (Buri, 1991, p. 111). In other words, perceptions of parental behavior (though possibly different than *actual* parenting behavior) may be equally important for understanding how parenting is related to an outcome of interest (e.g., narcissism).

One explanation for these findings could be that individuals who are high in *DSM-IV-TR* narcissism characteristically view other people (including their parents) through a lens of "negativity." Narcissism (as defined in this study) involves a sense of

entitlement and uniqueness. Most likely, individuals who report high levels of narcissism hold the expectation that others should recognize and validate their "superiority." It may be that when this is not the case, as a consequence, individuals high in narcissism assign negative attributes (i.e., coldness) to other people. Taking this explanation further, it may be that negative perceptions of others are actually an important "component" of narcissism (or "symptom" of NPD) that may be related to interpersonal impairment.

These findings also do not confirm, but *suggest*, agreement with the psychoanalytic perspective that cold and controlling parental behavior is related to narcissism. However, the mechanism by which this relationship evolves in psychoanalytic theory is confusing (a) due to the difficulty in operationally defining key constructs (e.g., "pathological organization of the self") and (b) because psychoanalytic theorists often disagree with one another about the mechanisms of this relationship (Miller & Campbell, 2008). In the view of the present author, a more parsimonious explanation for this finding may lie within the context of a social learning, or modeling paradigm.

Social learning theory posits that "children acquire new behaviors as they encounter their social and physical world" (Miller, 1983, p. 180). Narcissism does indeed involve behavior that could be considered "cold and controlling." As a specific example, one diagnostic criterion for NPD states that the individual "lacks empathy and is unwilling to recognize or identify with the feelings and needs of others" (APA, 2000, p. 717). Another criterion indicates that the individual, "is interpersonally exploitative,

i.e., takes advantage of other to achieve his or her own ends" (APA, 2000, p. 717). These criteria at least suggest cold and controlling behavior on the part of the individual who is high in narcissism. Therefore, from a social learning perspective, individuals high in narcissism may have encountered high levels of parental behavior that either was, or was perceived as, excessively cold and controlling and come to exhibit such behavior through modeling as a result of repeated exposure to it. Further research would be needed, however, to confirm such a causal explanation that can only be *suggested* by these findings.

Implications

In deriving the implications of this study, one must first consider the manner in which narcissism is conceptualized on a practical level. In clinical practice, currently, narcissism is not generally considered to be a continuum of functioning; rather, it is considered a diagnostic category for which an individual either meets the diagnostic criteria, or does not. Due to practical and logistical considerations, this study did not use a clinical sample of individuals who had been diagnosed with NPD. Nevertheless, because this study defined narcissism using the diagnostic criteria for NPD, it could be concluded that these results at least have *implications* for the diagnostic category of NPD. Two primary implications of the present study are identified and discussed below: implications for the diagnostic classification of NPD, and implications for treatment of NPD.

Implications for the diagnostic classification of NPD. As was discussed earlier, recent efforts have been undertaken to examine the utility of implementing a dimensional approach to the classification of psychopathology, especially the personality disorders. In this regard, it has been proposed that "normal" personality traits provide a solid framework for the development of such a diagnostic system.

This study examined the relationship of "normal" personality traits, as defined by two separate theories, to narcissism. Results indicated that two dimensions of "normal" personality (specifically, SR and agreeableness) are associated with narcissism. To the extent that future classification systems are based on dimensions of normal personality, these findings may be useful in ascertaining which personality dimensions are most pertinent to narcissism.

Widiger, Costa, and McCrae (2002) have proposed a four-step procedure for diagnosing personality disorders from the FFM specifically. According to these authors, the first step is provide a comprehensive assessment of personality functioning using an existing measure of the FFM. Second, the clinician would identify any social or occupational impairments that have been associated with the individual's characteristic personality traits. For instance, with regard to narcissism, this might involve examining the extent to which low levels of agreeableness have impacted the interpersonal functioning of the client. Third, the clinician would determine whether the reported dysfunction meets a clinically significant level of impairment. Previous research has indicated that the interpersonal dysfunction associated with narcissism can indeed reach

the level of clinical significance. Finally, the fourth and last step involves a quantitative matching of the individual's personality profile to prototypical profiles of diagnostic constructs. This "matching" can serve to indicate the extent to which any particular diagnostic category (e.g., NPD) would be adequately descriptive for the individual's behavior.

Implications for treatment. There are currently no empirically-validated treatments for NPD. Nevertheless, it has been suggested that personality may provide useful framework for the implementation of standard behavior therapy approaches (Nelson-Gray & Farmer, 2005). Given the finding that, for example, low agreeableness is very strongly associated with narcissism, this may point to potential interventions that are geared toward healthier functioning.

More specifically, individuals that are characteristically low in agreeableness tend to exhibit behavior that is distrustful, manipulative, arrogant, and callous. Awareness of such behaviors can be useful to a therapist whose first task is to develop a collaborative and trusting relationship with the client who is in treatment because of impairment due to high levels of narcissism. Acknowledgement of the difficulty and special considerations needed to build rapport with an individual who is high in narcissism may be likely to facilitate success and curb any undue frustration on the part of the therapist.

Furthermore, knowledge about the characteristically low levels of agreeableness in narcissism may also point to potential interventions for NPD. For example, Beck, Freeman, and Davis (2004), have noted that: "role plays, particularly with the inclusion

of role reversals, can be effective in fostering empathy and understanding of interpersonal boundaries" for an individual who is high in narcissism (p. 258). Given the strong relationship between agreeableness and narcissism, the improvement of interpersonal skills is a likely target (or "goal") of therapy with these individuals. In addition to training for any basic social skills that are lacking, it may also be that the development of "deeper" relationship skills, such as empathy and accepting influence from the feelings of others is necessary in treatment for NPD.

The finding that high levels of SR are associated with narcissism might also have implications for treatment. It is likely that clients who are high in narcissism may try to structure the therapeutic relationship in such a way that they are consistently attempting to glean positive reinforcement from the therapist (e.g., fishing for compliments, soliciting praise). It would be useful for the therapist to be aware of these tendencies and not provide excessive reinforcement to the client, especially without due cause. Knowledge about characteristically high levels of sensitivity to reinforcement might also be useful to the extent that the therapist can be sure to provide positive feedback when it is deserved, for example, when the client's behavior approximates appropriate interpersonal interactions and healthy expectations for others. These suggestions are consistent with a well-established behavior therapy paradigm called Functional Analytic Psychotherapy (Kohlenberg & Tsai, 1991).

Strengths

There are several strengths of the present study. The sample size was good, with over 200 participants used. In addition, a conservative approach was used for determining exclusion from the study. Participants were excluded based on: 1) a pre-determined cut-off for excessive missing data, 2) a measure that was included as a validity check and was been designed to detect random response patterns, the IFS, and 3) failing to provide reports about both a mother and a father figure.

This study also improved upon our understanding of the relationships among personality traits, perceived parenting styles, and narcissism by addressing the limitations of previous studies on this matter. First, previous studies examining the relationship between personality and narcissism have considered only one theory at a time. This causes uncertainty regarding which personality dimensions and which theories are most useful in terms of understanding narcissism. This study demonstrated that, when taking into account the dimensions associated with *both* RST and the FFM, each of these theories uniquely contribute to our understanding of narcissism.

Moreover, the literature has suggested that both personality and parenting play a role in narcissism. Until now, however, these constructs have been examined in regard to narcissism separately. This study examined whether both personality and perceptions of parenting are associated with narcissism when considered simultaneously. Results supported the notion that both internal (i.e., personal) and external (i.e., environmental) factors are associated with narcissism. By taking into account the multiple effects

between FFM, RST, and perceived parenting factors on narcissism, this study gives us (previously unknown) information about which of these dimensions exhibit unique associations with narcissism.

Limitations

Although this study provides useful information about the personality and parenting-based correlates of narcissism, there are also several limitations that should be considered. This study is based on a correlational design; therefore, the findings do not allow for conclusions to be drawn regarding causal factors in narcissism. Rather, only observed associations among the variables of interest can be discussed. This study also did not use a clinical sample of individuals who were diagnosed with NPD. Instead, this study viewed narcissism as multifaceted psychological construct that is reflected by the diagnostic criteria for NPD. Given the variety of definitions and conceptualizations of narcissism that exist within the literature, it should be noted that the associations reported here only pertain to this dimension as defined by the *DSM-IV-TR.*

With regard to the parenting variables, participants completed information about their lifetime perceptions of their parents retrospectively. This aspect of the study design indicates three separate limitations. First, the findings can only be discussed within the framework of *perceptions* of parenting. Conclusions about actual parenting behavior and the relationship to narcissism, therefore, cannot be deduced from this study. Second, the retrospective nature of data collection must be noted. Participants were reporting on perceptions of their parents that had been experienced up "while they were growing up at

home." Although the majority of the participants in this study were ages 18 and 19, it is entirely possible that their recollections, memories, and perceptions of parenting were biased, possibly due to reported levels of narcissism, and possibly due to other factors as well. Data that are based on retrospective accounts should always be interpreted through the lens of these cautions. Third, participants reported on their perceptions of their parents across the entirety of their "time living at home." This decreases specificity regarding the ages for which parenting might be particularly important in understanding narcissism.

Future Research

Further research is needed to clarify the relationships among personality, parenting, and narcissism. There are several ways in which future research could be improved to further our understanding of the relationships between these constructs.

First, future studies should consider factors outside of personality and parenting that may be implicated in narcissism. Thus far, the research has suggested only the relationship of these constructs to narcissism. However, the results of the present study indicated that personality variables (as defined by RST and the FFM) and parenting variables (as defined by Baumrind's theory) account for only a very modest percentage (34%) of the variance in narcissism scores. This indicates that other factors beyond personality and parenting would be useful in terms of understanding narcissism. For example, it may be that individuals who are extraordinarily talented or gifted in some way (e.g., academically) might be more "at risk" for developing high levels of

narcissism. It is also possible that factors such as physical attractiveness or socioeconomic status play into the development of narcissism. Given the proposition of using a social learning framework, the assessment of parental narcissism might also be useful in future studies.

Second, the manner is which parenting is assessed could be improved significantly in future studies. More specifically, future studies should consider assessing actual, in addition to perceived, parenting in order to determine whether the results are the same with regard to narcissism. This could be accomplished in a number of ways. One solution would be to have parents of study participants complete questionnaires about their own behavior. Although the PAQ (the measure used in the present study) is designed specifically for assessing *perceptions* of parenting, other measures that assess parenting behavior from the parent's perspective could be implemented. Another solution would be to design a study in which the behavior of parents is actually observed and recorded over time. Studies that include information about actual parenting behavior could also include reports of parenting perceptions and assess the extent to which these match with one another. Although these studies would require more in-depth planning and additional resources, they would yield more specific information about the relationship between parenting and narcissism.

Third, future research may help to confirm whether narcissism scores vary meaningful across different demographic groups. In the present study, narcissism scores did not vary by gender or by family income. However, there have been mixed findings in

other studies, especially with regard to gender, with some studies reporting that the narcissism scores of males are higher. Future research may benefit from: a) confirming the extent to which "true" demographic differences exist, and b) examining the associations among personality, parenting, and narcissism differentially by gender or other relevant demographic variables.

Finally, although these findings provide a foundation for understanding the relationships among personality, parenting, and narcissism, the development of a prospective, longitudinal study would ultimately be most effective for understanding the nature of these relationships. This would allow for multiple improvements in this line of research, including: a) the assessment of causal relationships, b) the investigation of a wider variety of factors, and c) more specific information concerning age-specific changes in narcissism and the relation to perceptions of parenting. Such a design would also allow for more specific information about the timing and the mechanisms through which these relationships unfold.

Conclusions

Narcissism has been defined and conceptualized in a number of ways, although the present study examined it as multifaceted and dimensional construct that is reflected by the *DSM-IV-TR* diagnostic criteria for NPD. The goal of the present study was to further explore the relationships among personality, perceived parenting styles, and narcissism. This was accomplished by examining multiple theories of personality and perceptions of parenting simultaneously, allowing for the determination of which

variables appear to exhibit unique associations with narcissism. Results indicated that agreeableness (from the FFM), sensitivity to reinforcement (SR; from RST), perceptions of maternal authoritarianism, and perceptions of paternal authoritarianism appear to exhibit unique relationships with narcissism and should be likely targets of future research.

Although this study provides a basic foundation for understanding these relationships, the correlational design of this study precludes the formation of any definitive conclusions regarding causality. Future studies that incorporate a longitudinal design and assess parenting variables in a more in-depth manner are likely to enhance our understanding of what constitutes narcissism and how it develops over time.

REFERENCES

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed. text revision). Washington, DC: Author.

Barber, J.P., & Morse, J.Q. (1994). Validation of the Wisconsin Personality Disorders Inventory with the SCID-II and PDE. *Journal of Personality Disorders, 8*, 307 – 319.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology, 4*, 1-103.

Beck, A.T., Freeman, A., & Davis, D.D. (2004). *Cognitive therapy of personality disorders.* New York: Guilford.

Benet-Martinez, V., & John, O.P. (1998). Los Cinco Grandes across cultures and ethnic groups: Multitrait-multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology, 75*, 729 – 750.

Buri, J.R. (1991). Parental Authority Questionnaire. *Journal of Personality Assessment, 57*, 110-119.

Carlson, K.S., & Gjerde, P.F. (*In-press*). Preschool personality antecedents of narcissism in adolescence and young adulthood: A 20-year longitudinal study. *Journal of Research in Personality* (2009), doi:10.1016/j.jrp.2009.03.003.

Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS Scales. *Journal of Personality and Social Psychology, 67*, 319 – 333.

Caseras, X., Avila, C., & Torrubia, R. (2003). The measurement of individual differences in behavioral inhibition and behavioral activation systems: A comparison of personality scales. *Personality and Individual Differences, 34,* 999 – 1013.

Chapman, L.J., & Chapman, J.P. (1986). *Infrequency scale for personality measures*. Available from T.R. Kwapil, Department of Psychology, University of North Carolina at Greensboro, P.O. Box 26164, Greensboro, NC, 27402.

Cohen, P., Cohen, C., West, S.G., & Aiken, L.S. (2002). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Costa, P.T., & McCrae, R.R. (1992). *NEO-PI-R: Professional manual*. Odessa, FL: Psychological Assessment Resources.

Costa, P.T., & McCrae, R.R. (2005). A five-factor model perspective on personality disorders. In S. Strack (Ed.), *Handbook of personology and psychopathology* (pp. 257-270). Hoboken, NJ: John Wiley & Sons, Inc.

Cronbach, L.J., & Meehl, P.E. (1955). Construct validity in psychological tests. *Psychological Bulletin, 52,* 281 – 302.

Depue, R.A., & Collins, P.F. (1999). Neurobiology of the structure of personality: Dopamine, facilitation of incentive motivation, and extraversion. *Behavioral and Brain Sciences, 22,* 491-569.

Ellis, H. (1898). Auto-eroticism. *Alienist and Neurologist, 19,* 260-299.

First, M., Spitzer, R., Gibbon, M., & Williams, J. (1997). Structured Clinical Interview

for DSM-IV Axis II Personality Disorders (SCID-II), version 2.0. New York State Psychiatric Institute: New York.

Foster, J. D., & Trimm, R. F. (2008). On being eager and uninhibited: Narcissism and approach-avoidance motivation. *Personality and Social Psychology Bulletin, 34* (7), 1004 – 1017.

Goldberg, L.R. (1992). The development of markers for the Big Five factor structure. *Psychological Assessment, 4,* 26-42.

Gray, J. A. (1970). The psychophysiological basis of introversion-extraversion. *Behaviour Research and Therapy, 8,* 249 – 266.

Gray, J. A. (1982). *The neuropsychology of anxiety: An enquiry into the functions of the septo-hippocampal system (1st ed.).* Oxford: Oxford University Press.

Gray, J. A. (1991). Neural systems, emotion, and personality. In J. Madden, IV (Ed.), *Neurobiology of learning, emotion, and affect* (pp. 273 – 306). New York: Raven Press.

Gray, J. A., & McNaughton, N. (2000). *The neuropsychology of anxiety: An enquiry into the functions of the septo-hippocampal system (2nd ed.).* New York: Oxford University Press.

Harmon-Jones, E., Abramson, L.Y., Sigelman, J., Bohlig, A., Hogan, M.E., & Harmon-Jones, C. (2002). Proneness to hypomania/mania symptoms or depression symptoms and asymmetrical frontal cortical responses to an anger-evoking event. *Journal of Personality and Social Psychology, 82*, 610-618.

Horton, R.S., Bleau, G., & Drwecki, B. (2006). Parenting Narcissus: What are the links

between parenting and narcissism? *Journal of Personality, 74,* 345-376.

Hundt, N.E., Nelson-Gray, R.O, Kimbrel, N.A., Mitchell, J.T., & Kwapil, T.R. (2007). The interaction of reinforcement sensitivity and negative life events in the prediction of anhedonic depression and mixed anxiety-depression symptoms. *Personality and Individual Differences, 43,* 1001 – 1012.

Hyler, S. E. (1994). Personality Diagnostic Questionnaire-4 (Unpublished test). New York: NYSPI.

John, O.P., Donahue, E.M., & Kentle, R.L. (1991). The Big Five Inventory: Versions 4a and 54. Berkeley: University of California, Berkeley, Institute of Personality and Social Research.

John, O.P., & Srivastava, S. (1999). The Big Five Trait taxonomy: History, measurement, and theoretical perspectives. In L.A. Pervin & O.P. John (Eds.), *Handbook of personality: Theory and Research (2nd edition)* (pp. 102-138). New York: Guilford Press.

Kernberg, O. (1975). Borderline conditions and pathological narcissism. New York, NY: Jason Aronson.

Klein, M.H., Benjamin, L.S., Rosenfeld, R., & Treece, C. (1993). The Wisconsin Personality Disorders Inventory: Development, reliability, and validity. *Journal of Personality Disorders, 7,* 285-303.

Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: Guilford Press.

Kohlenberg, R.J., & Tsai, M. (1991). *Functional analytic psychotherapy: Creating*

intense and curative therapeutic relationships. New York, NY: Plenum Press.

McConochie, W.A. (2007). *The Big Five Inventory (BFI) manual.* Eugene, OR: TestMaster, Inc.

McCrae, R.R., & John, O.P. (1992). An introduction to the five-factor model and its implications. *Journal of Personality, 60,* 175-215.

Miller, J.D., & Campbell, W.K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality, 76,* 449 – 476.

Miller, J.D., Campbell, W.K., & Pikolnis, P.A. (2007). Narcissistic personality disorder: Relations with functional impairment and distress. *Comprehensive Psychiatry, 48,* 170-177.

Miller, P.H. (1983). *Theories of developmental psychology.* San Francisco: W.H. Freeman & Company.

Millon, T. (1996). *Disorders of personality: DSM-IV and beyond* (2nd ed.). New York, NY: Wiley-Interscience.

Mitchell, J.T., Kimbrel, N.A., Hundt, N.E., Cobb, A.R., Nelson-Gray, R.O., & Lootens, C.M. (2007). An analysis of reinforcement sensitivity theory and the five-factor model. *European Journal of Personality, 21,* 869-887.

Mullins-Sweatt, S.N., & Widiger, T.A. (2006). The five-factor model of personality disorder: A translation across science and practice. In R.F. Krueger & J.L. Tackett (Eds.) *Personality and psychopathology* (pp.39 – 70). New York, NY: Guilford Press.

Nelson-Gray, R.O., & Farmer, R.F. (2005). *Personality-guided behavior therapy*.

Washington, D.C.: American Psychological Association.

Neter, J., Kutner, M., Wasserman, W., & Nachtsheim, C. (1996). *Applied linear statistical models* (4th ed.). Boston, MA: McGraw-Hill/Irwin.

Ogrodniczuk, J.S., Piper, W.E., Joyce, A.S., Steinberg, P.I., & Duggal, S. (*In-press*). Interpersonal problems associated with narcissism among psychiatric outpatients. *Journal of Psychiatric Research* (2009), doi: 10.1016/j.jpsychires.2008.12.005.

Pepper, C.M., Maack, D.J., Scharf, L.E., & Birgenheir, D. (2007, November). Behavioral activation and behavioral inhibition systems in DSM-IV personality disorders. In C.M. Pepper (Chair), *Reinforcement sensitivity theory and psychological disorders: The role of behavioral activation and behavioral inhibition systems.* Symposium conducted at the annual convention for the Association for Behavioral and Cognitive Therapies.

Pickering, A. D., & Gray, J. A. (1999). The neuroscience of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality* (pp. 277 – 299). New York: Guilford.

Ramsey, A., Watson, P.J., & Biderman, M.D. (1996). Self-reported narcissism and perceived parental permissiveness and authoritarianism. *Journal of Genetic Psychology, 157,* 227-238.

Raskin, R., & Terry, H. (1988). A principal components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology, 54,* 890-902.

Reuter, M., Stark, R., Hennig, J., Walter, B., Kirsch, P., Schienle, A., & Vaitl, D. (2004).

Personality and emotion: Test of Gray's personality theory by means of an fMRI study. *Behavioral Neuroscience, 118,* 462-469.

Ronningstam, E.F. (2005). *Identifying and understanding the narcissistic personality.* New York, NY: Oxford University Press, Inc.

Samuel, D.B., & Widiger, T.A. (2008). Convergence of narcissism measures from the perspective of general personality functioning. *Assessment, 15,* 364 – 374.

Saulsman, L.M., & Page, A.C. (2004). The five-factor model and personality disorder empirical literature: A meta-analytic review. *Clinical Psychology Review, 23,* 1055 – 1085.

Torrubia, R., Avila, C., Molto, J., & Caseras, X. (2001). The sensitivity to punishment and sensitivity to reward questionnaire (SPSRQ) as a measure of Gray's anxiety and impulsivity dimensions. *Personality and Individual Differences, 31*, 837-862.

Trull, T.J., & McCrae, R.R. (2002). A five-factor perspective on personality disorder research. In T.A. Widiger & P.T. Costa (Eds.), *Personality disorders and the five-factor model of personality* (2nd ed., pp. 45-57). Washington, D.C.: American Psychological Association.

Vazire, S., & Funder, D.C. (2006). Impulsivity and the self-defeating behavior of narcissists. *Personality and Social Psychology Review, 10,* 154 – 165.

Watson, P.J., Little, T., & Biderman, M.D. (1992). Narcissism and parenting styles. *Psychoanalytic Psychology, 9,* 231-244.

Widiger, T.A., Costa, P.T., & McCrae, R.R. (2002). A proposal for Axis II: Diagnosing

personality disorders using the five-factor model. In T.A. Widiger & P.T. Costa (Eds.), *Personality disorders and the five-factor model of personality* (2nd ed., pp. 431-456). Washington, D.C.: American Psychological Association.

Widiger, T.A., Simonsen, E., Sirovatka, P.J., & Regier, D.A. (2006). *Dimensional models of personality disorders: Refining the research agenda for DSM-V.* Washington, D.C.: American Psychological Association.

Appendix A

Table 1

Participant Demographic Characteristics (n = 206)

Demographic Characteristic		*n*	*%*
Gender			
	Male	49	23.8
	Female	156	75.7
Race			
	Caucasian	120	58.3
	African-American	60	29.1
	Asian	9	4.4
	Latino/a	7	3.4
	Pacific Islander	0	0
	"Other"	9	4.4
Age			
	18	130	63.1
	19	45	21.8
	20	13	6.3
	21	4	1.9
	22	2	1.0
	23	6	2.9
	24	2	1.0
	27	1	.5
	30	2	1.0
Annual Family Income			
	< $40,000	20	9.7
	$40,000 - $60,000	47	22.8
	$60,000 - $80,000	46	22.3
	$80,000 - $100,000	56	27.2
	> $100,000	36	17.5

**Note.* Percentages may not add up to 100% due to missing data.

Table 2

Participant-Reported Parent Dyads (n = 206)

Parent Dyad Used for Study	*n*	*%*
Biological Mother & Biological Father	178	86.4
Biological Mother & Stepfather	13	6.1
Biological Mother & Adoptive Father	3	1.5
Biological Mother & Grandfather	1	.5
Biological Mother & Uncle	2	1.0
Biological Mother & “Another Relative”	2	1.0
Biological Mother & “An Unrelated Man”	3	1.5
Biological Father & Stepmother	2	1.0
Biological Father & Grandmother	1	.5
Aunt & Uncle	1	.5

Table 3

Descriptive Statistics for Study Variables (n = 206)

Variable	M	SD	Range	Cronbach's α
Extraversion	27.55	6.33	11.00 – 40.00	.85
Agreeableness	35.94	5.37	20.00 – 45.00	.78
Conscientiousness	32.33	5.69	20.00 – 45.00	.80
Emotional Stability	25.05	6.34	9.00 – 40.00	.83
Openness	36.63	6.60	16.00 – 50.00	.81
SP	12.79	5.56	1.00 – 24.00	.83
SR	11.28	4.08	1.00 – 21.00	.74
Maternal Permissiveness	26.08	8.27	10.00 – 50.00	.78
Maternal Authoritarianism	32.63	8.54	12.00 – 50.00	.86
Maternal Authoritativeness	37.29	7.85	10.00 – 50.00	.86
Paternal Permissiveness	26.50	7.51	10.00 – 50.00	.78
Paternal Authoritarianism	32.28	9.91	10.00 – 50.00	.89
Paternal Authoritativeness	34.06	9.78	10.00 – 50.00	.89
Narcissism	45.95	23.63	2.00 – 116.00	.86

Table 4

Multiple Regression Analysis Predicting WISPI-IV Narcissism Scores (n = 206)

Predictor Variable	B	SE B	ß	VIF
Extraversion	-.48	.26	-.13	1.40
Agreeableness	-.71	.33	-.16*	1.59
Conscientiousness	.04	.29	.01	1.41
Emotional Stability	-.30	.26	-.08	1.35
Openness	.25	.22	.07	1.10
SP	.38	.28	.07	1.19
SR	2.03	.39	.35***	1.32
Maternal Permissiveness	.23	.19	.08	1.21
Maternal Authoritarianism	.55	.19	.20**	1.29
Maternal Authoritativeness	.21	.20	.07	1.31
Paternal Permissiveness	.29	.21	.09	1.20
Paternal Authoritarianism	.51	.17	.21**	1.46
Paternal Authoritativeness	.14	.16	.06	1.31

Note. R^2 = .34, * indicates significance at an alpha level of .05, ** indicates significance at an alpha level of .01, *** indicates significance at an alpha level of .001, SP = Sensitivity to punishment, SR = Sensitivity to reinforcement, B = unstandardized beta coefficient, SE B = standard error, ß = standardized beta coefficient, VIF = variance inflation factor.

Table 5

Multiple Regression Analysis Using Personality to Predict WISPI-IV Narcissism Scores (n = 206)

Predictor Variable	B	SE B	ß	R^2
Step 1				.265
Extraversion	-.25	.29	-.07	
Agreeableness	-.91	.32	-.21**	
Conscientiousness	.23	.29	.06	
Emotional Stability	-.14	.29	-.04	
Openness	.23	.23	.07	
SP	.73	.38	.16	
SR	2.20	.40	.38***	
Step 2				.269
SR x Agreeableness	-.07	.07	-.06	

Note. * indicates significance at an alpha level of .05, ** indicates significance at an alpha level of .01, *** indicates significance at an alpha level of .001, SP = Sensitivity to punishment, SR = Sensitivity to reinforcement, B = unstandardized beta coefficient, SE B = standard error, ß = standardized beta coefficient.

Table 6

Multiple Regression Analysis Using Parenting to Predict WISPI-IV Narcissism Scores (n = 206)

Predictor Variable	B	SE B	ß	R^2
Step 1				.139
Maternal Permissiveness	.27	.21	.10	
Maternal Authoritarianism	.48	.21	.17*	
Maternal Authoritativeness	-.05	.22	-.02	
Paternal Permissiveness	.21	.23	.07	
Paternal Authoritarianism	.80	.18	.34***	
Paternal Authoritativeness	.17	.18	.07	
Step 2				.139
M Authoritarianism x P Authoritarianism	.00	.02	.01	

Note. * indicates significance at an alpha level of .05, ** indicates significance at an alpha level of .01, *** indicates significance at an alpha level of .001, SP = Sensitivity to punishment, SR = Sensitivity to reinforcement, B = unstandardized beta coefficient, SE B = standard error, ß = standardized beta coefficient.

Appendix B

DSM-IV-TR Criteria for NPD

Has a grandiose sense of self-importance (e.g., exaggerates achievements and talents, expects to be recognized as superior without commensurate achievements)

Is preoccupied with fantasies of unlimited success, power, brilliance, beauty, or ideal love

Believes that he or she is "special" and unique and can only be understood by, or should associate with, other special or high-status people (or institutions)

Requires excessive admiration

Has a sense of entitlement, i.e., unreasonable expectations of especially favorable treatment or automatic compliance with his or her expectations

Is interpersonally exploitative, i.e., takes advantage of others to achieve his or her own ends

Lacks empathy: is unwilling to recognize or identify with the feelings and needs of others

Is often envious of others or believes that others are envious of him or her

Shows arrogant, haughty behaviors or attitudes

**Note.* In addition to meeting the "general" criteria for a PD diagnosis, five out of these nine criteria are required for a diagnosis of NPD.

Appendix C

Consent Form

CONSENT TO ACT AS A HUMAN PARTICIPANT
(Long Form)

Project Title: The role of personality and parenting in psychological functioning

Project Directors: Christopher M. Lootens, M.A., & Rosemery Nelson-Gray, Ph.D.

Participant's Name: _____ (please print your name here)

DESCRIPTION AND EXPLANATION OF PURPOSE AND PROCEDURES:

The purpose of this study is to examine the relationship between adult personality traits, perceptions of parental qualities, and psychological functioning. During this study, participants will complete a packet of questionnaires concerning these various areas of interest. All participants must be fluent in English. This study should take approximately 2 hours for you to complete. After this session has ended, you will receive 4 Experimetrix credits for your time. You will also receive a copy of this consent form that can be kept for your records.

POTENTIAL RISKS AND DISCOMFORTS:

Completing the questionnaires for this study entails only minimal risk, as some of the items ask about experiences that may be sensitive for some participants. Any discomfort encountered, however, is anticipated to be mild (that is, no greater than would be experienced in daily life). If you feel uncomfortable answering any of the questions, you may skip them without penalty.

POTENTIAL BENEFITS:

By participating in this study, you will be exposed to (a) the process of conducting psychological research and (b) various questionnaires that assess personality functioning. This exposure may be beneficial if you enroll in courses that focus on research methodology. This study will also benefit society, in that the field of psychology will gain knowledge concerning the relationship between parental behavior, personality functioning, and psychological functioning.

CONSENT:

By signing this consent form, you agree that you understand the procedures and any risks and benefits involved in this research. You are free to refuse to participate or to withdraw your consent to participate in this research at any time without penalty or prejudice; your participation is entirely voluntary. Your privacy is important to us and will be protected. As an example, you will identified by a "participant number" (not by your name or other identifying information) as a participant in this project.

The University of North Carolina at Greensboro Institutional Review Board, which ensures that research involving people follows federal regulations, has approved the research and this consent form. Questions regarding your rights as a participant in this project can be answered by calling Mr. Eric Allen at: (336) 256-1482. Questions that arise during this session can be directed to the research assistant who is here today, whereas questions regarding the project itself will be answered by Chris Lootens, who can be reached at: cmlooten@uncg.edu, or Rosemery Nelson-Gray, who can be reached at: (336) 334-5817. Any new information that develops during the project will be provided to you if the information might affect your willingness to continue participation in the project.

By signing this form, you are affirming that you are 18 years of age or older and are agreeing to participate in the project described to you by the Nelson-Gray lab research assistant who is running this session.

_____ _____

Participant's Signature Date

Appendix D

Participant Instructions

"Hello and welcome to Experiment 64. For this study, you will fill out questionnaires that tell us about your personality and other important factors. This study will take a maximum of 2 hours to complete and you will receive 4 credits for your time. Your answers to the questionnaires are completely confidential and your information will be identified with a random number, not your name. I will pass out the questionnaire packets in a moment, and you will see that the first form is a consent form. Please read this consent form first and sign it if you agree to participate in the study. If you have any questions about the consent form, please feel free to ask me.

Please take your time, read all questions in the packet carefully, and provide honest answers. You MUST USE PENCIL for these questionnaires, and I have extra if you need one. When filling in the bubbles, please make sure that you fill them in carefully and erase completely if you change your answer, as these forms are electronically scanned. Many of the questionnaires have questions on the front and the back, so please be sure to double-check that you have answered all questions on all sides of the forms. During this study, please do not talk to your fellow participants, and please turn off all cell phones or other electronic devices so that you do not disturb the other participants. After you have completed your packet, please turn it in to me so that I can check to make sure it is complete. I will give you a copy of the consent form and a debriefing form before you go. Thanks again for your participation today – my name is (name of person running the study), so please let me know if you have any questions."

Appendix E

Debriefing Form

The Role of Personality and Parenting in Psychological Functioning

Thank you very much for your participation today. We'd like to give you some additional information about the measures that you completed and the purposes of this study. The questionnaires you completed are called "self-report rating scales." They have been developed to help psychologists gather information from people about a wide range of problems and experiences. You may have noticed that many questions on the scales referred to the type of person you are and the way you typically behave in different situations. Many of these questions have been designed to assess your *personality*, or the characteristic way that people think, feel, and behave.

The personality scales you completed today were designed to match two very popular theories of personality: the Five Factor Model of Personality and Reinforcement Sensitivity Theory of personality. The Five Factor Model proposes that human personalities can be understood in terms of five broad traits: neuroticism, extraversion, openness, agreeableness, and conscientiousness. Reinforcement Sensitivity Theory proposes that the dimensions of anxiety (also called the behavioral inhibition system) and impulsivity (also called the behavioral approach system) contribute to personality functioning.

Self-report measures in this study also included questions about your experiences with your parents. For example, one of these surveys included items that measure three types of parenting styles that were identified by Baumrind (1971): authoritarian parenting, authoritative parenting, and permissive parenting.

For this study, we are interested in how personality is related to daily functioning and problems that people encounter in life. We are hopeful that we can answer questions about why some people experience personality-related problems while others do not. Although unlikely, some people may feel mild levels of distress when answering questions about themselves or about their parents. If this is the case for you, and you would like to talk to someone about this, the counseling center on campus can be reached by calling: 336-334-5440.

If you have any additional questions about this research study, you may contact Chris Lootens at cmlooten@uncg.edu.

Thanks again for your participation!