An Examination of Grandiose and Vulnerable Narcissism in Adults, Adolescents, and Children.

Kate Loren Derry, B.Sc (Hons)

A thesis submitted to the University of Western Australia to fulfil the requirements for the degree of Doctor of Philosophy.

School of Psychological Science
2018
Thesis Declaration

I, Kate Loren Derry, certify that:

This thesis has been substantially accomplished during enrolment in the degree of Doctor of Philosophy.

This thesis does not contain material which has been accepted for the award of any other degree or diploma in my name, in any university, or other tertiary institution.

No part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Western Australia.

This thesis does not contain any material previously published or written by another person, except where due reference has been made in the text.

The work(s) are not in any way a violation or infringement of any copyright, trademark, patent, or other rights whatsoever of any person.

The research involving human data reported in this thesis was assessed and approved by the University of Western Australia Human Research Human Ethics Committee (Chapter 2, RA/4/1/6924; Chapter 3, RA/4/1/7575; Chapter 4 and 5, RA/4/1/7064; Chapter 6, RA/4/1/8379). This thesis contains published work and work prepared for publication, all of which have been co-authored.

Kate Loren Derry (Candidate)
Date: 20 December 2018
Abstract

William James (1890) provided a simple definition of self-esteem: success divided by pretension. Therefore, to raise self-esteem I need to either lower my pretentions or increase my achievements. What happens if I increase my pretensions? Researchers have suggested that narcissism may be the result of such a change. Narcissism is defined as a distorted, inflated self-appraisal (Eromo & Levy, 2017). A large volume of research has found meaningful distinctions between high self-esteem and narcissism. A number of studies have also provided evidence towards a distinction between grandiose and vulnerable dimensions of narcissism in adults, although no study as yet has examined whether this distinction is evident in childhood. To understand how diverse self-appraisals develop, a clear understanding of narcissism in children is first necessary. In Chapter 1, the diverse literature on multidimensional narcissism and childhood narcissism is summarised, elucidating the ongoing difficulties surrounding narcissism nomenclature, conceptualisation, and measurement.

To address these difficulties, the first aim of this thesis was to examine the overlapping and separable features of narcissism dimensions and to develop measures that capture both expressions of narcissism in adults and children. This aim is addressed in Chapters 2, 3, and 4. Chapter 2 presents two studies that investigate the heterogeneous nature of narcissism in adults and develops the Narcissism Scale to reliably and validly measure grandiose and vulnerable narcissism in adults. Chapter 3 presents three studies that identify the core and peripheral features of narcissism and adaptive self-appraisals using the six-factor model of personality. These studies further validate the Narcissism Scale as a psychometrically robust measure of grandiose and vulnerable narcissism in adults. With a clearer understanding of narcissism in adults, Chapter 4 investigates if this distinction is meaningful prior to adulthood by adapting the
Narcissism Scale for use with children. Chapter 4 presents four studies that document the construction of the Narcissism Scale for Children, and reports psychometric evidence supporting its use as a measure of grandiose and vulnerable narcissism in children and adolescents.

The second aim of this thesis was to determine the parenting styles, child temperaments, and various outcomes associated with adaptive and maladaptive self-appraisals in children. This aim is addressed in Chapters 5 and 6. Chapter 5 identifies both parent and child factors that are relevant to grandiose and vulnerable narcissism in children. The findings are consistent with the hypothesis that different expressions of narcissism are associated with different parenting styles and temperamental sensitivities in children. The experimental design in Chapter 6 examines how narcissism in children influences their emotional responses to frustration. The findings are consistent with the hypothesis that grandiose and vulnerable narcissism are associated with different reactions to ego-threat, and provide further evidence that vulnerable narcissism is the more maladaptive expression of narcissism in children.

Together, these studies make an important contribution to our understanding of childhood narcissism, and in particular, the differences between the expression and measurement of grandiose narcissism and vulnerable narcissism. The studies reported in this thesis demonstrate that grandiose and vulnerable narcissism differ in terms of their relationships with other key variables, and these differences were consistent in adults, undergraduates, adolescents, and children. This thesis also demonstrates how research on narcissism that focuses on one expression of narcissism cannot be used to make inferences about both expressions or even about the broader narcissism construct. More generally, the findings indicate how unidimensional ‘one size fits all’ conceptualisations of complex constructs, such as self-esteem and narcissism, inhibit our acceptance of diversity and impede our understanding of the human experience.
# Table of Contents

Thesis Declaration ............................................................... i
Abstract ............................................................................. ii
Table of Contents .............................................................. iv
List of Appendices and Tables ............................................. viii
Acknowledgements ............................................................. x
Presentations ....................................................................... xii
Publications ........................................................................ xiii
Statement of Contributions ................................................ xiv
Authorship Declaration ....................................................... xv
Preface ................................................................................. xvi
References ........................................................................... xix

**Chapter 1. General Introduction** ........................................... 1

Understanding Narcissism as a Construct ......................... 2
A Narcissism Epidemic? ....................................................... 2
The Myth of Narcissus ........................................................ 3
Kernberg, Kohut, and Psychoanalytic Theories of Narcissism 5
The Emergence of Two Expressions of Narcissism ............. 7
The Narcissism Criterion Problem ..................................... 9
Empirical Support for Two Expressions .......................... 9
Categorical vs Dimensional Narcissism ......................... 10
Self-esteem vs Healthy Narcissism ................................. 12
Towards a Unified Field ..................................................... 14
Measurement of Narcissism .............................................. 15
Narcissism as defined by the DSM ................................. 16
Narcissistic Personality Measures for Adults .................. 16
Narcissistic Personality Measures for Children .............. 20
The Structure of Narcissism – Beyond the Big Five ......... 22
The Function of Narcissism – Self-Enhancement Thwarts Relatedness 24
Narcissism in Childhood .................................................... 24
Narcissism as a Developmental Process

The Role of Parenting Styles in Narcissism

The Role of Approach and Avoidance Temperament in Narcissism

Self-esteem Enhancement: Inflated Praise Backfires

Unstable Inflation: Is Shame the Affective Core of Narcissism?

Overview of the Current Research

References

Foreword

Chapter 2.  Toward Understanding and Measuring Grandiose and Vulnerable Narcissism within Trait Personality Models

Abstract

Introduction

Study 1

Method

Results

Discussion

Study 2

Method

Results

Discussion

General Discussion

References

Foreword

Chapter 3.  Core Features of Grandiose and Vulnerable Narcissism: An Examination of Honesty-Humility and Self-Compassion

Abstract

Introduction

Study 1

Method

Results

Discussion

References

Foreword
Chapter 4. Measuring Grandiose and Vulnerable Narcissism in Children and Adolescents: The Narcissism Scale for Children

Abstract
Introduction
Study 1
Method
Results
Discussion
Study 2
Method
Results
Discussion
Study 3
Method
Results
Discussion
Study 4
Method
Results
Discussion
General Discussion ................................................................. 159
References .................................................................................. 165
Foreword .................................................................................... 170

Abstract .................................................................................... 172
  Introduction .............................................................................. 173
  Method .................................................................................... 179
  Results .................................................................................... 181
  Discussion .............................................................................. 185
References .................................................................................. 190
Foreword .................................................................................... 194

Chapter 6.  Fearing Failure: Grandiose Narcissism, Vulnerable Narcissism, and Emotional Reactivity in Children ............................................................................. 195
Abstract .................................................................................... 196
  Introduction .............................................................................. 197
  Method .................................................................................... 204
  Results .................................................................................... 208
  Discussion .............................................................................. 213
References .................................................................................. 220

Chapter 7.  General Discussion ................................................................. 227
Key Findings ................................................................................ 229
  Narcissism in Adults (Chapter 2 and 3) ..................................... 230
  Narcissism in Children (Chapters 4, 5, and 6) ...................... 233
Implications of the Research .......................................................... 238
  Grandiose and Vulnerable Narcissism ................................... 239
  Childhood Narcissism ............................................................ 245
Limitations of the Research .......................................................... 249
Future Research Directions .......................................................... 251
Concluding Thoughts ................................................................. 254
References .................................................................................. 255
List of Appendices

Appendix A. Example Recruitment Flyer ................................................................. 266
Appendix B. Example Participant Information Forms – Parent ................................ 267
Appendix C. Example Participant Information Forms – Child .............................. 269
Appendix D. Example Consent Forms – Parent ...................................................... 270
Appendix E. Example Consent Forms – Child ....................................................... 271
Appendix F. Example Mazes – Chapter 6 ................................................................. 272
Appendix G. Demographic Survey ......................................................................... 274
Appendix H. Unreported Data – Chapter 4 and 5 .................................................. 275
Appendix I. Unreported Data – Chapter 6 ................................................................. 277
Appendix J. SRCD 2017 Poster ............................................................................. 278

List of Tables

Chapter 1

Table 1.1 Measures of Narcissism and their Thematic Emphases .......................... 19

Chapter 2

Table 2.1 Convergent, Incremental, and Discriminant Validity of the Narcissism Scale in an Undergraduate Sample .......................................................... 66
Table 2.2 Summary of PCFA Unrestricted Factor Loadings from the Pattern Matrix .............................................................. 72
Table 2.3 Narcissism Scale Inter-Correlations, Internal Reliability, and Scale Statistics .............................................................. 73
Table 2.4 Convergent, Incremental, and Discriminant Validity of the Narcissism Scale in a Community Sample .................................................................... 74

Chapter 3

Table 3.1 Fit Statistics for One-, Two-, Three- and Four-Factor Models of Narcissism .......... 101
Table 3.2 Pattern Matrix of Narcissism Measures for Two- and Four-Factor Solutions .......... 102
Table 3.3 Bivariate Correlations between Self-Appraisals and the HEXACO Factors ........... 108
Table 3.4 Summary of Hierarchical Regression Analysis for the HEXACO Factors predicting Vulnerable and Grandiose Narcissism ................................................................. 110

Table 3.5 Bivariate Correlations between Grandiose and Vulnerable Narcissism and the HEXACO Facets ........................................................................................................ 114

Chapter 4

Table 4.1 PCFA Pattern Matrix Factor Loadings and Descriptive Statistics for Child and Adolescent Samples (Child/Adolescents) ........................................................................ 138

Table 4.2 Validity of the Narcissism Scale for Children (Child Sample) - Psychological and Emotional Functioning ......................................................................................... 143

Table 4.3 Validity of the Narcissism Scale for Children (Child Sample) - Behavioural and Social Functioning .................................................................................................................. 145

Table 4.4 Validity of the Narcissism Scale for Children (Child Sample) - Clinical Impact ................................................................................................................................. 150

Table 4.5 Validity of the Narcissism Scale for Children (Adolescent Sample) ................................................................................................................................. 156

Chapter 5

Table 5.1 Internal Consistencies, Means, Standard Deviations, and Correlations among Main Variables .................................................................................................................. 182

Table 5.2 Summary of Regression Analyses for Child Temperament (C) and Parenting Styles (P) predicting Child Narcissism and Self-Esteem .................................................................................. 184

Chapter 6

Table 6.1 Internal Consistencies, Means, Standard Deviations, and Correlations among Main Variables ........................................................................................................................................ 205

Table 6.2 Summary of Regression Analyses for Child Narcissism and Self-Esteem predicting Reactive Emotions in Children .................................................................................................................. 211

Table 6.3 Summary of Regression Analyses for Child Narcissism and Self-Esteem predicting Social and Performance Estimates in Children .................................................................................................................. 211
Acknowledgements

I acknowledge the Whadjuk Noongar people as the traditional owners and spiritual custodians of the land where the University of Western Australia sits. I have spent a large portion of my life on this beautiful campus and it has been an honour to have spent so much time here.

This research was supported by an Australian Government Research Training Program (RTP) Scholarship, awarded by the University of Western Australia, as well as funds from the School of Psychological Science, which I am grateful for. I am particularly grateful for the travel allowances awarded by the university and the school; participating in an international conference and meeting researchers from all over the world was truly awe-inspiring. This work was also made possible by the many individuals and schools who supported recruitment over the years, and I am especially grateful to the staff at SciTech who generously agreed to host my last study.

The luxury of writing a thesis is a privilege that many of the bright women of the past and present have been denied. I am grateful to have lived in a time and place that has empowered me to stand on the shoulders of giants and make a contribution of my own. In the darker moments of the PhD process I have wondered if keyboard warriors (researchers) can make any real difference to the world but I trust in the words of Dr Eleanor Seaton who assured me that research is a kind of activism too. Fortunately, the majority of this process has been tremendously bright, due in no small part to the inspiring leaders in the School of Psychological Science, the wonderful front office staff, and the support of my family and friends.

To my supervisors, Dr Jeneva Ohan and Dr Donna Bayliss, it has been an honour to learn from you and to be guided by your encouragement, wisdom, and patience. Thank you for giving me direction (and just enough praise) when I needed it, but for also supporting my autonomy and allowing me to bring my ideas to life. I’m sorry that after all of this which vs that still eludes me!
Jeneva, when we first met and you asked me if I’d like to do my honours project on narcissism, I told you I wasn’t sure what that word meant so I’d have to do some research and get back to you. Thank you for sending me down this rabbit hole, I have been truly enthralled by this topic and it would not have been possible without your shared curiosity, enthusiasm and willingness to learn.

To my family, thank you for persevering with me, for sharing your perspectives, and for always providing me with food for thought and for my belly and flowers for my soul. Dad, the secret philosopher, thank you for providing a sanctuary when I needed it and for showing this struggling student how to live with contentment. Mum, thank you for always believing that I could and should be doing this, I will forever be motivated by your love. Jesse, thank you for making study breaks magical and for teaching me how to talk to kids. Reigan, who has always helped me find the light in the darkness and insisted on knowing everything that I know so that we always understand each other, thank you for being my star.

To the friends who have supported me along the way. Cael, thank you for your beautiful design work. Giordana, thank you for being both a mentor and a friend. Ryan, thank you for your myriad of insights on personality and life. Ash, thank you for your unrelenting enthusiasm for my work and for coming to my first conference, in Texas, with me!

To Kim, I am so grateful we got to share an office and this journey. You are such an inspiration and I knew from the moment we met that you would beat me to the finish line!

And not least, to Franky, thank you for showing me how to find joy in the little things and to not sweat the small stuff… there is a difference between the small stuff and little things! I might have done this a faster without you, but my life is richer for all the little distractions and incredible memories of the last five years. I wouldn’t want it any other way.
Presentations

First Author Presentations Relating to Thesis


Publications

First Author Publications Relating to Thesis


Statement of Contributions

The idea to investigate grandiose and vulnerable narcissism in adults and children was suggested by the candidate. The ethics applications leading to these works were completed by the candidate, Kate Loren Derry, with guidance from the candidate’s coordinating supervisor, Dr Jeneva Ohan, and co-supervisor, Dr Donna Bayliss. Each study contained in this thesis was designed by the candidate with guidance from the candidate’s supervisors. This thesis contains published work and work prepared for publication, all of which has been co-authored by the candidate and her supervisors. Co-authored declarations regarding contributions and permissions to include the co-authored works are provided below.

The bibliographic details of the manuscripts presented in this thesis and their locations in the thesis have been indicated on the previous page. All manuscripts presented in this thesis were prepared by the candidate and amended in response to feedback provided by Dr Ohan and Dr Bayliss. Recruitment materials and participant consent, assent, and information forms were generated by the candidate in consultation with the candidate’s supervisors. Participant recruitment, data collection, cleaning, and analysis were completed by the candidate under the supervision of her supervisors.
Authorship Declaration

I, Kate Loren Derry, certify that my statements regarding my contributions to the works listed above are correct.

__________________________
Kate Loren Derry (Candidate)
Date: 20 December 2018

I, Jeneva Ohan, certify that Kate’s statements regarding her contributions to the works listed above are correct. I approve of the work for which I am coauthor to be included in this thesis.

__________________________
Jeneva Ohan (Coordinating Supervisor, coauthor)
Date: 25 February 2019

I, Donna Bayliss, certify that Kate’s statements regarding her contributions to the works listed above are correct. I approve of the work for which I am coauthor to be included in this thesis.

__________________________
Donna Bayliss (Co-supervisor, coauthor)
Date: 25 February 2019
Preface

The term narcissism is widely used, yet even amongst scholars of narcissism, there is contention around its precise meaning. Broadly, narcissism is often used to describe the inflated perceptions a person has of his or her self. From its earliest references in Greek mythology and psychodynamic theory, narcissism has represented a disturbance of the self and a denial of the need for others. As eloquently stated by Freud (1914, p. 64) in his seminal essay On Narcissism, “so long as he suffers, he ceases to love.” In contemporary society, narcissism has become a pejorative, colloquial term for a personality trait that is characterised by excessive vanity or self-interest, yet this popular view only touches the surface of this complex phenomenon.

Despite the enduring fascination with this construct across disciplines, narcissism still lacks a consensual definition. Many researchers avoid defining narcissism altogether. Those that do attempt a definition typically focus on associated traits such as interpersonal antagonism (Miller et al., 2017), diagnostic symptoms including entitled self-importance (Krizan & Herlache, 2017), personality processes whereby a grandiose yet vulnerable self-concept underlies the chronic goal of obtaining continuous external self-affirmation (Morf & Rhodewalt, 2001), or psychodynamic descriptions of libido that has been withdrawn from the external world and directed towards the ego (Freud, 1914). Even the most colloquial definition of a narcissist – the only thing bigger than their inflated ego is the void they demand others to fill (Urban Dictionary, 2018) – implies that no matter how good it may feel, narcissism is an undesirable trait.

Although these definitions imply that narcissism is undesirable, to what extent narcissism is adaptive or maladaptive is still a matter of debate. On one hand, narcissistic traits have been linked to negative psychosocial outcomes including reduced prosocial behaviours and increased antisocial behaviours in both adults and youth (Germain, 2017; Muris, Merckelbach, Otgaar,
2017; Twenge & Campbell, 2009). On the other hand, narcissism has also been advocated as a trait valued in individualistic societies and necessary to succeed in the modern world (Campbell, 2001). Furthermore, narcissism has been linked to psychological well-being and life satisfaction in students, and is thought to be particularly adaptive, and perhaps even necessary, prior to adulthood (Hill & Roberts, 2011). A potential explanation for these paradoxical findings, is that different expressions of narcissism have different outcomes. The multidimensional nature of narcissism has been studied extensively in adults, yet despite evidence to the contrary, narcissism in children is measured and conceptualised unidimensionally. To determine if narcissism is deleterious or beneficial to the self and society, it is necessary to distinguish between grandiose and vulnerable narcissism dimensions in adults and children.

The aim of this dissertation is to clarify existing narcissism nomenclature by furthering our understanding of grandiose and vulnerable narcissism across the lifespan, and in particular, the measurement and characteristics of narcissism prior to adulthood. Chapter 1 presents a review of the current literature that describes two expressions of narcissism as well as the link between narcissism and child development. This chapter provides both the background and rationale for the empirical studies presented in this thesis. Chapters 2 and 3 examine the factor structure of trait narcissism and describe the development of a scale that measures grandiose and vulnerable narcissism dimensions in adults. Chapter 4 describes the development and initial validation of a scale that measures grandiose and vulnerable narcissism in children. Chapter 5 identifies the contributions of parenting styles and child temperaments to narcissism in children. Chapter 6 examines how narcissism in children influences their emotional reactivity in responses to ego-threat. Chapter 7 summarises the findings of this thesis in the context of other research, and discusses the implications for future studies.
This thesis is presented as a series of interlinked research papers and theoretical chapters, all of which are largely focused on the same topic: grandiose and vulnerable narcissism. Each chapter is written as an independent manuscript and is independently referenced. Thus, each chapter is presented in its published form or in the format required by the journal to which it has been submitted for peer review. Consequently, some themes are presented multiple times throughout the thesis. At the time of submission, two chapters have been published (Chapter 2 and Chapter 4), one chapter has been accepted for publication but is not yet published (Chapter 6), and two chapters have been submitted for publication and are under review (Chapter 3 and Chapter 5).
References

Chapter 1. General Introduction
Chapter 1

Understanding Narcissism as a Construct

A Narcissism Epidemic?

Narcissism is the belief that one is inherently superior to and deserving of more than others; a belief that paradoxically depends on others for validation (Krizan & Herlache, 2017). The media and the academic community alike have paid considerable attention to the purported ‘epidemic’ of narcissism in modern society, and the increasingly inflated self-views and unrealistic expectations deemed as typical of modern youth (Twenge & Campbell, 2009). In 1979, sociologist Christopher Lasch published, *The Culture of Narcissism*, a seemingly prophetic bestseller that critiqued the normalisation of narcissistic personality traits in American society. The following decades saw the birth of millennials labelled ‘Generation Me’; the self-esteem movement pervade schooling; the advent of social media, selfies, and a new breed of fame-fixation reminiscent of the ancient myth of Narcissus. Millennials are now constantly connected to and visible in a self-oriented public space. Indeed, the Internet that now pervades modern life has been described as a narcissist’s paradise (Amichai-Hamburger, 2017).

Psychoanalysts have also noted a shift in clinical populations away from classical transference to narcissistic neuroses over the last century (Auerbach, 1993; Russel, 1985). Although self-enhancing biases and competitive individualism have long been considered central to Western ideology and definitions of success, academics are now questioning what consequence exclusively agentic values and excessive self-focus may have on individuals and the world around them (Twenge & Campbell, 2009; Cai, Kwan, & Sedikides, 2012; Vater, Moritz, & Roepke, 2018). In light of sociocultural shifts towards globalisation, understanding the causes and consequences of narcissism is paramount in the context of current social trends.
The supposition that narcissism is on the rise has been empirically validated by several comprehensive cross-temporal meta-analyses of generational trends in psychopathology. These trends indicate a linear increase in narcissistic personality traits in college students between 1982 and 2006 \((d = .33; \text{Twenge et al., 2008; Twenge & Campbell, 2008; Twenge & Foster, 2008; Twenge, 2013})\). Evidence that sociocultural changes have led to a rise in narcissistic traits has even been documented in China, a culture that has been traditionally less imbued with the individualistic values of the West (Cai et al., 2012). Other research teams have disputed this interpretation, citing meta-analytic data that showed little evidence for a meaningful change in egotism in high school students over the same time period (Trzesniewski & Donnellan, 2010), or citing age changes in narcissism that were larger than generational changes, concluding that narcissism reflects long-standing and axiomatic adolescent tendencies that scholars have lamented for millennia (Roberts, Edmonds, & Grijalva, 2010). One is left to ponder, what does narcissism mean, where does it come from, and why does it matter?

**The Myth of Narcissus**

Unlike most personality traits or disorders, the concept of narcissism first originated in Greek mythology. Approximately 2000 years ago, the ancient myth of Narcissus warned against the tragedy of excessive self-interest. There are several versions of the myth, the most highly renowned being Ovid’s account in his epic 8 A.D. poem *Metamorphosis* (Martin, 2004). According to the myth, when the beautiful Narcissus was born, his mother asked the blind seer, Tiresias, if he would live to a ripe old age, and the wise seer replied, “Yes, if he does not come to know himself” (*Met.3.348*). Although a paradoxical tribute to the anciet Apollonian aphorism, *know thyself*, they were considered to be empty words. Yet this prediction of Narcissus’ fate cemented Tiresias’ status as a prophet in *Metamorphosis*. 
Everyone who laid eyes on Narcissus fell in love with him. Yet Narcissus reciprocated this love to no one, until one day he caught sight of his own reflection in a clear pool and he himself became the object of his approval (Met 3.415). Cut off in the flower of his youth, Narcissus wasted away beside the pool, alone, aggrieved, and gazing at his own reflection, unaware of the pain he had caused others and too self-absorbed to connect with anything outside himself. He loved himself but could not love another. In the end, his body disappeared, image replaced substance, and all that was left was a narcissus flower (Met. 3.505). The narcissus flower in Greek mythology represents the gateway to the underworld and was named for its olfactory narcotising properties and association with sleep, unconsciousness, and death (Lomas, 2011).

In biology, metamorphosis describes the process by which an individual is transformed after birth, as with caterpillar to butterfly. Similarly, the myth of Narcissus appears to evoke the developmental transformation of childhood, the formation of the ego, and the ability to represent distinctions between oneself and others. The separation-individuation theory of development states that the successful transformation of the child occurs after separating from the mother and developing an independent identity (Mahler, Pine, & Bergman, 2000). A positive transformation of the child entails learning to balance autonomous and dependent needs (Lapsley, 1993; Harter, 2012), whereas an unsuccessful transformation of the child results in a distorted self-concept and an inability to form healthy attachments with others. When a child’s self-worth is externally validated or based primarily on other-approval, the subsequent preoccupation with oneself compromises normative development and, reminiscent of Narcissus’ stagnation, has been labeled ‘looking-glass self-orientation’ (Harter, Clare, & Nancy, 1996). These developmental themes have persevered through the narcissism discourse over the centuries highlighting the potentially destructive nature of self-centeredness.
Kernberg, Kohut, and Psychoanalytic Theories of Narcissism

Narcissistic psychopathology was first introduced to the field of psychology in 1898 by the English physician, Havelock Ellis. In a paper titled, *Autoeroticism: A psychological study*, he described a “Narcissus-like tendency” to “be absorbed and often entirely lost in self-admiration” (Ellis, 1898, p. 280). Subsequently, the word ‘narcissism’ was coined and defined in the Oxford English Dictionary (1930) as morbid self-love. In those early years, narcissism was seen as a perversion and used to describe female vanity or male homosexuality, both of which were regarded at the time as abnormal and unhealthy (Lomas, 2011). The concept of narcissism was later expanded by psychoanalytic theories and often described a normative developmental process rather than a clinical condition (Freud, 1914; Rank, 1911). Freud (1950) was one of the first to grasp the tremendous significance of the construct, proposing that the function of narcissistic self-aggrandisement was to protect against self-esteem vulnerabilities and fears of failure. Although Freud conceded that narcissism could be considered adaptive for its self-preserving function, it still inhibited what he described as the optimal good life: “A strong egoism is a protection against falling ill, but in the last resort we must begin to love in order not to fall ill, and we are bound to fall ill if... we are unable to love,” (Freud, 1914 p. 85).

A century of psychoanalytic observation and a number of theories laid the foundation for our understanding of narcissism and continue to exert influence today. The development of the narcissism construct within the psychoanalytic tradition cumulated in the work of two prominent psychoanalysts: Otto Kernberg and Heinz Kohut (Glassman, 1988; Russell, 1985). Much of the conceptualisation of narcissism as we understand it today is attributed to their extensive and influential contributions to the literature. The Kernberg-Kohut debate over the nature of narcissism resulted in the admission of narcissism as an official psychiatric diagnosis in the
Diagnostic and Statistical Manual of Mental Disorders (DSM; American Psychiatric Association, 1980), opening the gateway to narcissism becoming a popular empirical subject.

Kernberg’s ‘object-relations theory’ (1975, 1984, 1998, 2001) surmised that narcissism was rooted in conflict between the idealised and devalued self, primarily caused by emotional deprivation or prolonged periods of inordinate frustration with early caregivers' inconsistent love, control, and criticism. Grandiosity was deemed a defense against aggressive impulses and fears of dependency that allowed the individual to protect their self-esteem by withdrawing into ‘splendid [emotional] isolation’ (Kernberg, 1975). Although narcissistic individuals often held prestigious positions and were initially charismatic, they were also described as ‘empty under the glitter,’ characterised by shallow emotional lives, parasitic relationships, and antisocial behaviours (Kernberg, 1975). Narcissistic clients presented with feelings of emptiness and boredom, as well as low frustration tolerance. The apparent contradiction between their inflated self-concept and inordinate need for positive regard from others betrayed the disturbances in their self-regard and object-relations (relations with others, originally between child and mother).

Kohut’s ‘self-psychology’ (1966, 1972, 1977) saw narcissism as a developmental deficit. In his account, overvalued, lenient, and yet unempathetic parenting led to developmental arrests in the primal grandiose-exhibitionistic self and needs of early childhood. Without judicious responding, it was thought that the child would not experience normal frustrations of their infantile sense of omnipotence and would remain emotionally immature into adulthood. For example, idealisation does not transform into healthy admiration and aggression does not transform into healthy assertiveness. Although such parenting makes children feel superior, they do not feel accepted for their full selves (both positive and negative features) and are left incessantly pursuing strategies to keep their self-esteem regulated and to deny negative feelings.
In this case, grandiosity was seen as a defense against fears of inadequacy and the dominant affect problem was shame rather than aggression.

In sum, both Kernberg and Kohut shared a broad agreement that narcissism has a core of self-aggrandisement and saw it as a problematic yet necessary adaptation to dysfunctional childhood environments. However, they diverged in their descriptions of the phenomenological characteristics of narcissistic individuals, their views of the type of parenting styles implicated in the development of narcissism (devalued versus overvalued), and the subsequent motivational dynamics of narcissistic self-aggrandisement. Indeed, Alder (1986) suggested that Kernberg and Kohut may be describing two distinct subgroups of the narcissistic personalities.

*The Emergence of Two Expressions of Narcissism*

The Kernberg-Kohut (or conflict-deficit) debate represents two paradigmatic theories of narcissism. Despite many diametrically opposed features in their theories, Kernberg and Kohut had two main areas of agreement. First, both agreed that narcissism originates in childhood, and second, that bold/hypomanic and shy/hypochondric expressions constituted the two major presentations of narcissism. Kernberg observed that some patients with narcissistic personalities presented with an inordinate sense of greatness, while others revealed these hidden beliefs during their analysis (Kernberg, 1975). Although Kernberg treated clinical patients, he supported the continuity between high-functioning (subclinical) narcissism and severe clinical narcissism (Kernberg, 1975). Kohut treated relatively high-functioning patients, yet he also described a ‘vertical splitting’ where the narcissists’ grandiosity was openly displayed and feelings of vulnerability were chronically denied, and ‘horizontal splitting’ where the grandiosity was much less conspicuous and vulnerability was consciously experienced (Kohut, 1971, p. 240).
Variability in the expression of narcissism is well documented in the modern clinical literature (Cain et al., 2008; Ronningstam, 2005). However, the level of diversity in diagnostic descriptions found in the psychodynamic literature often impedes an integrated understanding of narcissism and has led to criticisms that the clinical descriptions are unscientific and reductionist. One of the primary reasons for the transition from the psychodynamic to the empirical literature was the need for scientific validation of narcissism theories. Yet, despite the inconsistencies across different conceptualisations of narcissism in the theoretical literature, there is a recurrent observation that the expression of clinical narcissism seems to occur between two opposing expressions (Cain et al., 2008; Gabbard, 1989). Both expressions of narcissism are inherently grandiose (in their inflated self-appraisal) and vulnerable (in their dysfunctional relations with others and chronic self-esteem maintenance). However, in an attempt to create a common nomenclature, the two narcissism dimensions have been categorised as either emphasising an bold interpersonal style and labeled, *Grandiose Narcissism* (GN), or emphasising a shy interpersonal style and labeled, *Vulnerable Narcissism* (VN; Cain et al., 2008).

What these two opposing dimensions of narcissism imply is still a matter of controversy today. Are they different manifestations of the same underlying construct, or distinct phenotypes with separate etiologies? Do two contradictory personality configurations oscillate within the individual psyche, do they vary between individuals, or is there a developmental trajectory from early expressions of overt grandiosity that develop over time into a more covert pathological expression? Understanding the causes and development of narcissism and its varied dimensions is integral to settling such debates. However the inconsistent conceptualisations of narcissism in the literature have led to a criterion problem (Pincus & Lukowitsky, 2010), thus a consensual definition of narcissism and a measure of childhood narcissism must first be established.
The Narcissism Criterion Problem

Empirical Support for Two Expressions

Using diverse methodological approaches, empirical research has consistently identified two expressions of narcissism. Both GN and VN are characterised by an inflated self-appraisal and sense of entitlement over others and are associated with antisocial behaviours. However, each is also characterised by traits that appear mutually exclusive to the other. For example, the GN dimension is associated with high levels of self-esteem, extraversion, and approach-motivation, as well as low neuroticism and denial of interpersonal distress (Dickinson & Pincus, 2003; Krizan & Herlache, 2017; Miller et al., 2017; Wink, 1991). On the other hand, the VN dimension is associated with high levels of neuroticism, interpersonal distress, and avoidance-motivation as well as low levels of self-esteem and extraversion (Dickinson & Pincus, 2003; Krizan & Herlache, 2017; Miller et al., 2017; Wink, 1991). Despite these findings, the bifurcated nature of narcissism is often ignored, which exacerbates phenotypic and taxonomic confusion. Many researchers talk broadly of ‘narcissism’ when only one of these two dimensions has been measured in their analyses, making it difficult to integrate the findings across research studies (Claudio, 2018; Lambe et al., 2018). This may be largely due to the prevalence of measurement tools and labels that fail to acknowledge the distinction between the two narcissism dimensions (Cain et al., 2008; Krizan & Herlache, 2017; Pincus & Lukowitsky, 2010).

Furthermore, the personality-focused research tends to favour the measurement of GN (Raskin & Hall, 1979), while pathology-focused research tends to favour VN (Pincus et al., 2009). Such an approach fails to accurately represent the narcissism construct in both fields and creates the false impression that GN represents subclinical narcissism and VN represents clinical narcissism (Miller & Campbell, 2008). Although VN represents a more psychologically
A distressed expression of narcissism, researchers have warned that a lack of distress does not necessarily indicate psychological health; indeed, psychopathy is also associated with a lack of distress (Murphy & Vess, 2003; Paulhus & Williams, 2002). Additionally, GN and VN have been found to be equally represented in undergraduate samples as well as in clinical populations (Maxwell et al., 2011; Pincus & Lukowitsky, 2010; Ronningstam, 2005). However, researchers (Lynam & Widiger, 2001), clinicians (Samuel & Widiger, 2012), and lay persons (Miller, Lynam, Sedor, Crow, & Campbell, 2018) generally view GN as the prototypical expression.

The supposition that there are two broad expressions of narcissism has persisted over the last century, despite the constantly evolving conceptualisation of narcissism, the proliferation of labels used to describe its variations, and the burgeoning divide between interested disciplines. In a comprehensive review of the literature, Cain et al. (2008) detailed the convergence across clinical theory, social/personality psychology, and psychiatric diagnosis on these two broad descriptions of narcissism. The tendency for clinicians and researchers to value one expression and devalue the other has led to a fundamental criterion problem, meaning that it is difficult to synthesise the meaning and measure of narcissism across disciplines (Miller et al., 2017; Pincus & Lukowitsky, 2010). In order to move the narcissism field forward at this juncture, Cain et al. (2008) urged researchers to take an integrated approach to narcissism by acknowledging and incorporating both VN and GN themes in future descriptions and investigations of narcissism.

**Categorical versus Dimensional Narcissism**

Despite the documented convergence on GN and VN as the two main expressions of narcissism across disciplines, the distinction between clinical and subclinical narcissism still pervades the literature. Many clinicians consider clinical (or pathological) narcissism to be qualitatively different to subclinical (or healthy) narcissism (Roche et al., 2013; Pincus et al.,
Categorical approaches such as these represent traditional conceptualisations of psychopathology – either an individual has a disorder or they do not. On the other hand, personality models see disorders as extreme variants of general traits that exist to varying degrees in all individuals (Foster & Campbell, 2007; Lynam & Widiger, 2001). Due to their distressed intrapersonal functioning, VN is often considered to be the more pathological expression and GN the healthy expression, yet both VN and GN are represented in trait and clinical literatures, thus categorical distinctions seem to confuse narcissism expressions with narcissism severity (Maxwell et al., 2011). Accumulated evidence indicates that many forms of psychopathology are not well conceptualised as categories (Krueger & Eaton, 2010; Widiger & Mullins-Sweatt, 2009). This reiterates the need to adopt a dimensional approach, which assumes that the same symptoms that define clinical disorder are also manifest to varying extents in the general population. Indeed, Narcissistic Personality Disorder (NPD) was considered for removal from the DSM-5 in favour of a dimensional model of personality pathology (Clark, 2007).

Most social-personality psychologists view narcissism dimensionally, with the intensity of its various expressions ranging from very low to very high. Within social-personality approaches, GN and VN are often seen as two distinct and unipolar constructs that are likely to have different etiologies (Miller & Campbell, 2010; Miller et al., 2017; Wink, 1991). Some clinicians disagree with this supposition, proposing that GN and VN are comorbid within-person differences that define pathological narcissism. These clinicians tend to believe that oscillations between GN and VN represents clinical narcissism, and social/personality research is associated with a third categorically different type of narcissism that is suggestive of healthy functioning (Pincus et al., 2009; Roche et al., 2013). In sum, the structure and expression of narcissism is still heavily debated. Does GN represent trait and VN represent pathological narcissism, or do both
GN and VN expressions occur in clinical and trait populations, or are there three dimensions of narcissism, one that represents healthy functioning and two that indicate pathological narcissism?

**Self-esteem versus Healthy Narcissism**

Healthy narcissism is thought to be qualitatively different to clinically problematic narcissism (Roche et al., 2013). Healthy narcissism is described in the clinical literature as, “adaptive self-esteem regulation of the normally integrated self, sources of which include positive feelings that attend to one’s safety, mastery, appearance, and health, the attainment of goals and living up to one’s ideals” (Kernberg, 1998, p. 104). Indeed, some analyses of the structure of narcissism have found a third factor of narcissism composed of facets representing creativity, achievement-orientation, authority, and leadership, which seems to represent the descriptions of ‘healthy narcissism’ (Krizan & Herlache, 2017; Wink, 1992). However, this third category has questionable validity as a part of the broader narcissism construct and is likely to represent a confound between self-esteem and narcissism (Rosenthal & Hooley, 2010).

Self-esteem and narcissism both represent positive self-appraisals. Because of this, the two are sometimes conflated (Brummelman et al., 2016; Hyatt et al., 2018). Yet, high narcissism levels are typically perceived as problematic, yet high self-esteem is desirable. The conflation of narcissism with self-esteem is reinforced when trait narcissism is described as ‘healthy’ (Pincus et al., 2009). The supposition that narcissism can be healthy is largely due to the positive relations of GN with indices of psychological health, such as lack of distress, extraversion, and subjective well-being (Campbell, Rudich, & Sedikides, 2002; Sedikides et al., 2004). Indeed, the link between GN and psychological health is fully accounted for by self-esteem (Sedikides et al., 2004). As some experts have outlined, **intrapersonally**, GN is difficult to differentiate from high self-esteem, but **interpersonally**, the differences are more pronounced, as GN is associated with
undesirable behaviours not associated with high self-esteem, such as antagonism and hostility (Rhodewalt & Morf, 1995). This distinction has not yet been examined in VN.

The identification of two expressions of narcissism adds further complexity to the intra-inter-personal issue. At the core of narcissism is a distorted, inflated self-concept (Eromo & Levy, 2017). Yet, GN is positively related to self-esteem and seen as intrapersonally adaptive, while VN is negatively related to self-esteem and associated with intrapersonal distress (Zeigler-Hill, Clark, & Pickard, 2008). Psychodynamic conceptualisations of narcissism led to what is known as the mask model of narcissism, in which surface-level grandiosity (overt high self-esteem) is believed to mask hidden feelings of inadequacy and rejection (covert low self-esteem). Alternatively, in overt VN lurks a covert grandiose vision of what one could or should be (Meissner, 1979; Morrison, 1983). In sum, a mask of haughty aloofness is thought to hide the narcissist’s true negative feelings towards their self and others. This implies that there is a difference between true high self-esteem and the narcissist’s grandiose mask. The mask model pervades theoretical accounts of narcissism, yet empirical attempts to qualify this model using implicit self-esteem measures have been unsuccessful. For example, measures of implicit self-esteem (implicit association tests and name letter tests) have no relation to GN (Bosson et al., 2008). However, implicit self-esteem measures were also not related to each other, raising serious concerns about the validity of implicit self-esteem rather than the mask model.

Like narcissism, self-esteem is a heterogeneous construct that has become more elusive as our understanding of it deepens. The heterogeneity of high self-esteem has been described in a variety of other ways, such as genuine/defensive (Schneider & Turkay, 1975), secure/fragile (Kernis & Goldman, 1999), and contingent/true (Deci & Ryan, 1995), all of which draw a distinction between optimally high self-esteem and problematically high self-esteem. The
distinction became particularly salient following the emergence of evidence that linked inflated or unstable self-esteem with aggression and violence (Baumeister, Smart, & Boden, 1996; Bushman & Baumeister, 1998). A recent review by Eromo and Levy (2017) reconceptualised the self-esteem construct as a spectrum of self-appraisals. In their review, self-appraisals varied as a function of 1) accuracy, 2) directionality, and 3) stability. Optimal high self-esteem is thereby an accurate, positive, and stable self-appraisal. By contrast, GN is a distorted, inflated, and stable self-appraisal, and VN is a distorted, inflated, and unstable self-appraisal. In this context, it can be understood that GN is more adaptive than VN because it is a stable self-view, yet optimal self-esteem is more adaptive than GN because it is an accurate self-view. This new model of self-esteem provides some novel insight into the differences between optimal self-esteem, GN, and VN, but has yet to be integrated into the narcissism discourse.

_Towards a Unified Field_

Three years after Cain et al.’s (2008) review of the narcissism literature, _The Handbook of Narcissism and Narcissistic Personality Disorder_ was published in another attempt to bridge the divide between trait and clinical narcissism (Campbell & Miller, 2011). Six suggestions to unify the field were proposed. The first suggestion urged the field to recognise the distinction between GN and VN, and to work together to understand how they are related and distinct. The second and third spoke to research methodologies that strive to build bridges between research labs and clinicians and that move beyond undergraduate samples. The fourth suggestion identified the need to examine and integrate primary causal models of narcissism. Understanding the etiology and phenomenology of narcissism was considered necessary to facilitate advances in the treatment of narcissism (suggestion five), as well as our understanding of the function and validity of pathological narcissism (suggestion six).
Despite this adjure, the narcissism field still suffers from its criterion problem and lack of consensual definition (Wright, 2015). Understanding the nature and development of GN and VN remain as outstanding controversies in the field of narcissism today (Miller et al., 2017). The conflation of constructs and oversimplification of theories have exacerbated the field’s fractured state (Kealy, Hadjipavlou, & Ogrodniczuk, 2015). Perhaps the biggest barrier to consolidating the diverse contributions to the narcissism literature is the lack of a measurement tool that can satisfactorily measure both GN and VN, either in adults or prior to adulthood. In this dissertation, I support the view that GN and VN are qualitatively different dimensions of narcissism that are present in non-clinical populations. Consistent with this view of narcissism, I support that narcissism can range in severity from very low to very high, with very high levels of either dimension representing clinical narcissism. Further, I support the view that empirical research on trait narcissism, in adults and children, can be used to better understand pathological narcissism and its nomological network.

**Measurement of Narcissism**

*Narcissism as defined by the DSM*

Narcissistic Personality Disorder (NPD) gained credibility upon its introduction into the DSM-III (APA, 1980). The DSM continues to have a strong influence on the conceptualisation of narcissism today but this has not been without criticism. A large-scale clinical review of the DSM-IV (APA, 1994) suggested that the diagnostic criteria of NPD were too narrow and neglected central aspects of pathological narcissism as seen in clinical practice, specifically its vulnerable symptoms (Russ, Shedler, Bradley, & Western, 2008). Despite the substantial evidence for at least two different narcissism dimensions and the emphasis of VN in clinicians’ descriptions of narcissism, the DSM-IV diagnostic criteria reflected only one factor of narcissism
Acknowledgement of narcissistic vulnerability in the current edition is limited to a single sentence in the supplementary features, ‘their self-esteem is almost invariably very fragile’ (DSM-5; APA, 2013). The World Health Organisations’ International Statistic Classification of Diseases (ICD-10) echoes the DSM-5. In contrast to the DSM-5 and ICD-10 criteria, the Psychodynamic Diagnostic Manual (PDM) describes two subtypes of NPD: arrogant/entitled (corresponding to GN) and depressed/depleted (corresponding to VN; PDM Task Force, 2006). These also encompass the two descriptions of narcissism that have been identified in clinical practice (Ronningstam, 2005).

Failing to represent narcissistic variation in the DSM-III, DSM-IV, and DSM-5 has led to oversimplification, underdiagnoses, and a misrepresentation of narcissism in both clinical and research settings, which exacerbates the field’s divided state (Wright, 2016). This is reflected in the attitudes of researchers who imply that VN may have questionable validity as part of the broader narcissism construct (Miller et al., 2017) or that narcissism has questionable validity as a personality disorder (Clark, 2007). In sum, the DSM-5 conceptualisation of NPD is inappropriate as it lacks concordance with clinical descriptions by 1) omitting vulnerable symptoms, 2) focusing on grandiose symptoms, and 3) failing to acknowledge both GN and VN expressions.

**Narcissistic Personality Measures for Adults**

The measurement of narcissism has been primarily driven by two forces, clinical experience and empirical research, that have operated largely in isolation from the theoretical background of GN and VN, and independently of each other. Prior to the initial inclusion of NPD in the DSM-III, narcissism was identified primarily by clinical conjecture and unstructured interviews. Structured and semi-structured interviews were later developed based on DSM-IV symptoms and are the gold standard for the diagnosis and assessment of NPD (Rogers, 2003),
but these are far too laborious for empirical investigations. The recognition of NPD as an official psychiatric diagnosis also led to a sizeable increase in empirical interest in narcissism. This new research was primarily facilitated by the then newly developed 40-item Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979, 1981; Raskin & Terry, 1988).

The NPI has produced the largest empirical record and is by far the most commonly used measure of narcissism (Ames, Rose, & Anderson, 2006). However, there are notable limitations to the NPI. First, consistent with the DSM symptom criteria for NPD, the NPI does not measure VN characteristics. Second, the factor structure of the NPI has remained a matter of debate since its inception, with the issue further exacerbated by the poor internal reliability of the NPI subscales (Ackerman et al., 2016; Kubarych et al., 2004). Thus, researchers today often use the total NPI score to supplement the factor variation and this is considered to be a valid measure of GN (Ames et al., 2006). Third, the strong emphasis on intrapersonal features of narcissism in the NPI have also led to problematic confounds between narcissism and self-esteem (Brown, Budzek, & Tamborski, 2009; Foster, Shiverdecker, & Turner, 2016; Rosenthal & Hooley, 2010). Therefore, NPI studies represent the prototypical extraverted expression of narcissism (Cain et al., 2008). Another major problem is the distinction between GN and VN is not often acknowledged in NPI research, resulting in conclusions about ‘narcissism’ that are specific to GN. Thus, despite its popularity as a research tool, the NPI has limited validity as an inventory of narcissism per se. The NPI’s emphasis on GN has created a substantial bias in the empirical literature and considerable dissent around the meaning and measurement of ‘narcissism.’

Since the NPI’s inception, many alternative measures of narcissism have been developed in an attempt to overcome some of these limitations, and in particular, to assess a wider spectrum of narcissistic dysfunction. A comprehensive review of all of these measures is beyond the scope of
this review; however a summary is presented in Table 1.1. Extant measures differ in the extent to which they clearly distinguish GN and VN. Current convention categorises scales as measuring GN or VN based on their peripheral associations with key correlates (Wink, 1991; Cain et al., 2008). Specifically, GN is positively associated with self-esteem and extraversion and negatively associated with neuroticism, while VN is negatively associated with self-esteem extraversion and positively associated with neuroticism (Krizan & Herlache, 2017; Miller et al., 2017). These seemingly distinct dimensions also share core personality features that define narcissism per se. Core features represent traits or measures that, unlike peripheral features, are correlated with or shared by both narcissism dimensions (e.g., entitled self-importance, interpersonal antagonism). Thus are necessary but not sufficient indicators of narcissism. Core features do not discriminate between the two dimensions but rather represent variance shared by GN and VN and are illuminated by the trifurcated model of narcissism (Krizan & Herlache, 2017; Miller et al., 2017).

It is evident from Table 1.1 that the labels used for the measures do not clearly indicate whether GN or VN is primarily being assessed, which contributes to the criterion problem in the narcissism literature (Cain et al., 2008). The need for precision when discussing or measuring narcissism is necessary to draw clear distinctions between the outcomes and causes of each narcissism variant. Furthermore, it has been observed that no measure of narcissism has been developed that concisely and specifically represents both GN and VN (Krizan & Herlache, 2017). The FFNI was designed to assess manifestations of narcissism across the Five-Factor Model of Personality trait domains (Glover et al., 2012). Although the FFNI is a comprehensive measure, its length (150-items) may make it suboptimal for some social/personality researchers (Krizan & Herlache, 2017), as evidenced by the lower number of citations. However, a shorter 60-item version of this measure has been developed and validated (Sherman et al., 2015).
Table 1.1
Measures of Narcissism and their Thematic Emphases

<table>
<thead>
<tr>
<th>Authors</th>
<th>Cited</th>
<th>Scale</th>
<th>Subscales</th>
<th>Core Features</th>
<th>Grandiose Narcissism</th>
<th>Vulnerable Narcissism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raskin &amp; Hall, 1979</td>
<td>1,565</td>
<td>Narcissistic Personality Inventory (NPI)</td>
<td>Single factor</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ashby et al. 1979</td>
<td>102</td>
<td>Narcissistic Personality Disorder Scale (NPDS)</td>
<td>Single factor</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Raskin &amp; Novacek, 1989</td>
<td>196</td>
<td>Raskin and Novacek Narcissism Scale (RNNS)</td>
<td>Single factor</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lapsley et al., 1989</td>
<td>111</td>
<td>New Personal Fable Scale (NPFS)</td>
<td>Personal Uniqueness</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inviolability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Omnipotence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyler, 1994</td>
<td>717</td>
<td>Personality Diagnostic Questionnaire (PDQ-4)</td>
<td>Narcissism</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Hendin &amp; Cheek, 1997</td>
<td>495</td>
<td>Hypersensitive Narcissism Scale (HNS)</td>
<td>Single factor</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Gibbon et al., 1997</td>
<td>4945</td>
<td>Structured Clinical Interview for DSM-IV Personality Questionnaire (SCID-II/PQ)</td>
<td>Narcissism</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campbell et al., 2004</td>
<td>660</td>
<td>Psychological Entitlement Scale (PES)</td>
<td>Single factor</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rosenthal &amp; Hooley, 2007</td>
<td>64</td>
<td>Narcissistic Grandiosity Scale (NGS)</td>
<td>Single factor</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Pincus et al., 2009</td>
<td>626</td>
<td>Pathological Narcissism Inventory (PNI)</td>
<td>Exploitativeness</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Entitlement Rage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Grandiose Fantasy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Contingent Self-esteem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Devaluing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hiding the Self</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Self-sacrificing Self-enhancement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glover et al., 2012</td>
<td>108</td>
<td>Five-Factor Narcissism Scale (FFNS)</td>
<td>Need for Admiration</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Shame</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Distrust</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reactive Anger</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Manipulativeness</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Exploitativeness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Entitlement</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lack of Empathy</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Arrogance</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Exhibitionism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Grandiose Fantasy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Authoritativeness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acclaim Seeking</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Thrill Seeking</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Krueger et al., 2012</td>
<td>710</td>
<td>Personality Inventory for DSM-5 (PID-5)</td>
<td>Narcissism</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brunell et al., 2013</td>
<td>24</td>
<td>Interpersonal Exploitativeness Scale</td>
<td>Single factor</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Back et al., 2013</td>
<td>202</td>
<td>Narcissistic Admiration and Rivalry Scale (NARQ)</td>
<td>Admiration</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Crowe et al., 2018</td>
<td>1</td>
<td>Narcissistic Vulnerability Scale (NVS)</td>
<td>Single factor</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Note. Citation count taken from Google Scholar, 17 May 2018.
Perhaps the most promising alternative to the NPI has been the 52-item Pathological Narcissism Inventory (PNI; Pincus et al., 2009). The PNI and NPI also have short-form versions (Ames et al., 2006; Schoenleber et al., 2015). The PNI was designed and purports to measure both GN and VN; however structural equation modelling and correlational methods have shown that none of the seven PNI factors clearly represent GN, making the PNI predominantly a measure of VN (Krizan & Herlache, 2017; Miller et al., 2014). Since this is not evident from the factor labels, research using the PNI has led to confusion around the GN construct and its measurement (Bresin & Gordin, 2011; Euler et al., 2018). Consequently, it has become common practice for researchers to include two scales (e.g., NPI and PNI) to comprehensively assess narcissism. However, the unclear factor structures, inconsistent factor labels, and differing rating scales between the NPI and PNI can make this a protracted and arduous strategy, which (in addition to the fractured state of the literature) may deter researchers from examining narcissism. There is a need for an assessment tool that clearly labels and assesses both GN and VN in adults with brevity, and thus allows the measurement of narcissism to be easily incorporated into empirical research. Failing to do so will exacerbate the criterion problem dividing the literature.

*Narcissistic Personality Measures for Children*

The scales reviewed thus far have been designed for and used with adults. However, across all theoretical orientations, narcissism has been speculated to originate in childhood (Kernberg, 1975; Kohut, 1971; Millon, 1981). In order to answer questions around the causes, development, and etiology of narcissism, a measure that can be used with children is necessary. Although several measures of narcissism have been developed for use with children or adolescents, all of these were informed by the NPI and therefore none were designed to capture vulnerable expressions of narcissism.
The NPI for Children (NPIC; Barry, Frick, Killian, 2003) was directly downward extended from the NPI. Due to inadequate subscale reliabilities, the 37-items were divided into two rationally determined subscales, one that emphasised intrapersonal components of (grandiose) narcissism (specifically, authority and self-sufficiency) and the other that emphasised interpersonal components (entitlement, exploitativeness, and exhibitionism). These subscales were labeled ‘adaptive’ and ‘maladaptive’ narcissism because only the latter was associated with problematic externalising behaviour (Barry et al., 2003; Barry, Frick, Alder, & Grafeman, 2007). The less popular Narcissistic Personality Questionnaire for Children (NPQC; Ang & Yosuf, 2006) was also downward extended from the NPI and predominantly reflects GN. The initial study identified four NPQC factors (18-items in total), but two factors (specifically, leadership and self-absorption) were later discarded due to inadequate reliabilities and questionable construct validity (Ang & Raine, 2009). The remaining two (superiority and exploitativeness, 16-items) reflect intrapersonal and interpersonal GN, respectively.

The most frequently used measure of narcissism in children currently is the Childhood Narcissism Scale (CNS; Thomaes, Stegge, Bushman, Olthof, & Denissen, 2008). The CNS was designed to be a unidimensional measure of narcissism and the final 10 items were selected based on their correlations with other items in the initial pool. Factor analyses were then conducted, which supported the unidimensional structure of the CNS. The CNS items were based on the characteristics cited in theories and measures that predominantly reflect GN. Like the NPI, the CNS has been criticised for emphasising intrapersonal components of GN (e.g., feelings of specialness; Kealy et al., 2016).

Despite the differences in these child narcissism scales, a striking similarity remains: none were designed to measure VN. The lack of a measure of VN for children is a significant
limitation to understanding the development of this personality trait. The oversimplification of the narcissism construct in children and failure to represent both dimensions will further divide and polarise research disciplines if not corrected. This possibility is particularly concerning because to date, research using child narcissism scales have offered conclusions about ‘narcissism’ generally, rather than about GN specifically. While substantial progress has been made towards acknowledging multidimensional narcissism and measuring GN and VN in adults, the lack of common nomenclature between adult and child measures adds considerable confusion to an already divided literature. In moving forward, a clear and succinct measurement tool with which to measure both narcissism variants is needed.

*The Structure of Narcissism – Beyond the Big Five*

Our understanding of narcissism and its accurate measurement is enhanced by elemental approaches using structural models. Structural models conceptualise narcissism as a unique combination of personality traits and as our understanding of personality and narcissism grows, each informs the other (Cronback & Meehl, 1955; Gurtman, 1992; Miller et al., 2011). Using trait profiles and elemental approaches, we are able to identify central and peripheral components of narcissism and distinguish dimensions of narcissism from other personality disorders and personality dimensions (Wiggins, 1996; Lynham & Widiger, 2001; Miller et al., 2017). Using diverse measures, structural models have contributed valuable information to our understanding of the differences between GN and VN, as well as core narcissism traits. Thus, the development of improved measures of narcissism should clearly represent this information and be informed by the most recent models of personality.

Initial meta-analytic research on the relationship between the NPI and the Five Factor Model of personality (FFM; McCrae & John, 1992) described (grandiose) narcissists as
“disagreeable extraverts” (Paulhus, 2001, p. 228). A recent review of trait narcissism and the FFM conducted by Miller et al. (2017) extended this structural model of narcissism to include VN and concluded that at the core of narcissism is an intensely antagonistic interpersonal style. GN and VN are both inversely correlated with agreeableness/antagonism but differ in regard to extraversion/detachment and neuroticism/emotional stability. GN is positively associated and VN is negatively associated with extraversion. On the other hand, VN is positively but GN is negatively associated with neuroticism. However, low agreeableness and high neuroticism is characteristic of most personality disorders, which leaves narcissism, and especially VN, with questionable discriminant validity (Lawton, Shields, & Oltmanns, 2011; Miller et al., 2017).

Furthermore, the ability of the FFM to clearly distinguish between personality disorders has been a criticism of the reigning model (Boyle, 2008; Saulsman & Page, 2004).

Although the FFM highlights the differences between GN and VN, evidence suggests that the newly developed HEXACO model of personality may be able to add substantially to our understanding of the central narcissism features, as well as to distinguish narcissism from other personality disorders (Lee & Ashton, 2004, 2005). This is primarily due to the addition of a sixth factor of personality that was revealed by a number of lexical studies into the HEXACO model: Honesty/Humility (HH). Low levels of HH represent egoism, or a tendency towards grandiosity, entitlement, and exploitation (Ashton & Lee, 2007), characteristics that are central to the core of narcissism (Krizan & Herlache). Indeed, humility has been described as the antithesis of narcissism (Hogan & Fico, 2011). Thus far, HH has been useful in extending the structural model of VN using the PNI (Bresin & Gordon, 2010) and distinguishing VN from borderline personality disorders (Thielmann, Hilbig, & Niedtfeld, 2014). However, a clear structural model of the HEXACO that accurately considers both GN and VN dimensions is yet to be investigated.
The Function of Narcissism – Self-Enhancement Thwarts Relatedness

The structure of narcissism can also be used to inform its function. Perhaps the most widely cited functional model of narcissism is Morf and Rhodewalt’s (2001) dynamic self-regulatory model. This model sees self-concept as a dynamic interplay between intrapersonal self-regulation processes, interpersonal behavioural strategies, and social relationships. It is speculated that the narcissist’s chronic need for self-enhancement underlies their interpersonal difficulties (Baumeister & Vohs, 2001; Dufner, Gebauer, Sedikides, & Denissen, 2018). The primary goal of the narcissistic personality is to maintain an unrealistically inflated self-esteem. However, striving for self-esteem leads to increased reactivity to perceived disapproval or negative feedback and undermines learning, autonomy, self-regulation goals, and ultimately, the ability to have positive relations with others (Crocker & Park, 2004). Thus, the function of narcissism is ultimately self-defeating, not only to meeting their self-esteem needs but also to meeting their core psychological need of relatedness (Ryan & Brown, 2003).

In this way, low HH can be understood as a chronic need to maintain superiority over others at any cost (Mededovic, 2012) and low agreeableness can be understood as the consequent reactivity to ego-threat (Ashton & Lee, 2007). Understanding the function of reactive self-esteem and thwarted relatedness may provide insight into the development of GN and VN in children.

Narcissism in Childhood

Narcissism as a Developmental Process

For a time, psychoanalytic developmental theory used primary narcissism to describe a normal stage of infant development during which early omnipotent illusions and demands for attention are later tempered by reciprocity and empathy for others; if not tempered by late childhood, these earlier normative manifestations were seen to become secondary narcissism
Kernberg (1975; Kohut, 1977). Kernberg (1986) explicated the differences between primary and secondary narcissism: grandiose fantasy and over-reaction to frustrations are no longer age-appropriate but excessive and exclusive, needs and demands are no longer realistic or possible to meet, exhibitionism is aloof rather than endearing, and relations with others are characterised by destructiveness and a need for control. Because primary narcissism represents normal and healthy self-development, it has largely been abandoned by contemporary researchers. Thus, childhood narcissism in the empirical literature refers to the idea of secondary narcissism (referred to hereafter as narcissism).

Since its earliest conceptions, narcissism has been thought to originate in childhood (Kernberg, 1975; Kohut, 1971). Indeed, narcissistic tendencies have been measured in as young as preschool age children (Carlson & Gjerde, 2009). Kernberg (1975) considered narcissism to be a defensive mechanism against intolerable frustration. Kohut (1971) considered narcissism to be a self-esteem supportive mechanism, critical to the development of positive self-feelings. Yet both perspectives saw narcissism as emerging in childhood as a way to regulate self-esteem and cope with developmental challenges. Indeed, the reliance on others to validate their inflated self-appraisal, that is characteristic of narcissism, may be connected to internal or relational processes of childhood. For example, self-regulation and self-esteem processes in adults have been tied to the development of self-conscious emotions and the need for approval from significant others. In sum, narcissism seems intimately linked to intra- and inter-personal experiences in childhood.

The Role of Parenting Styles in Narcissism

Clinical theories have long argued that parenting received during childhood plays a causal role in the development of narcissism. Kernberg (1975) emphasised intrusive or shaming parenting styles that put undue focus and pressure on the child to meet the parent’s expectations.
as the primary cause of narcissism. Somewhat like Kernberg, Kohut (1977) agreed that parenting that was unresponsive or (covertly) rejecting of the child’s needs caused narcissism, although he also emphasised parenting styles that were overly permissive or enmeshed with the child. The latter (overly permissive or enmeshed) style was rarer at the time of his writings but is likely more common in today’s cultural landscape (Twenge & Campbell, 2009). Both styles of parenting inhibit separation-individuation and invalidate the child’s experience and needs in light of the parents’. In both cases, the child develops a vulnerability to manipulation (via praise or shame) as compliance to the parents’ needs is reinforced and rewarded. However, the latter (overvaluing lenient) style is felt more positively by the child than the former (devaluing controlling) style.

Rothstein (1979) summarised both psychodynamic perspectives of narcissism as emphasising devaluation, or parenting that values the parent’s needs and ambitions over the child’s. The devaluation hypothesis casts childhood narcissism as a reaction to self-esteem threat and masking a search for parental approval, as described in the mask model of narcissism. By contrast, Millon’s (1981) social learning perspective offered a more direct path to narcissism in which unconditional positive regard and a lack of judicious responding creates the belief in the child that an inflated self-view exists independent of behaviour and that others are inferior and can be easily manipulated for one’s own appeasement. This perspective casts narcissism as a consequence of parental overvaluation rather than a response to devaluation. Despite the proposed differences in etiology, the core of the personality structure is thought to be the same. The inaccurate self-inflation at narcissism’s core, “cannot be sustained in the outer world” (Millon, 1981, p. 165) and is subsequently vulnerable, regardless of the individual’s unstable hypervigilance or obliviousness to ego-threat (VN and GN, respectively; Gabbard, 1989).
Many research studies have investigated the relationship between narcissism and parenting. However, there are limitations to these investigations. First, there are discrepancies between clinical and empirical conceptualisations of parenting styles, with parenting being operationalised in a variety of ways and numerous labels being used to describe constructs that seem to be synonymous with each other. Second, the empirical literature on parenting and narcissism has largely neglected the distinction between GN and VN and focused instead on dividing GN (or NPI subscales) into maladaptive and adaptive narcissism (Longobardi, 2016). Due to the questionable construct validity of adaptive NPI subscales (e.g., Ang et al., 2009; Barry et al., 2003), it is unclear how adaptive narcissism in these studies is different to self-esteem, making it difficult to integrate the diverse findings. Finally, most of these studies measure current reports of narcissism and retrospective reports of parenting in undergraduates; thus, recall bias may affect results. Conflated with this is the assumption that an offspring’s retrospective reports of their parents’ parenting styles accurately reflect parenting behaviours. This assumption is questioned by research that found no relation between teenagers’ and parents’ reports of parenting behaviours (Mechanic & Barry, 2015). Despite these methodological limitations, the findings are reviewed below.

The early investigations of undergraduate self-reports of current narcissism and retrospective recollections of early parenting styles focused on the dichotomy between permissive (low monitoring) and cold (low warmth) parenting. The constructs of parental overvaluation and psychological control were later added to extend the conceptualisations of overvalued- and undervalued-parenting, respectively. Two early studies found a positive association between self-reports of permissive parenting during childhood and GN in undergraduates (Ramsey, Watson, Biderman, & Reeves, 1996; Watson, Little, & Biderman,
1992). A later study found an interaction between psychological control and permissiveness predicted GN (Horton, Bleau, & Drwecki, 2006). Similarly, in a sample of adolescents, positive parenting (i.e., involvement and warmth) practices predicted healthy narcissism (i.e., self-sufficiency and authority), while negative parenting (i.e., poor monitoring and inconsistent discipline) practices predicted GN (Barry, Frick, Alder, & Grafeman, 2007). In another undergraduate sample, perceptions of positive parenting (consistent love and empathy) from parents negatively predicted GN and positively predicted self-esteem (Trumpeter, Watson, O’Leary, & Weathington, 2008). Consolidating the findings of these studies is difficult due to inconsistent conceptualisations of parenting. To address this limitation, Horton and Tritch (2014) included all the summarised parenting styles in one study and found that none were correlated with GN, but when all were entered into a regression, low warmth and high control predicted GN, and parental support, permissiveness, and overvaluation did not reliably predict GN.

Moreover, none of the above mentioned studies accounted for VN. In a study by Otway and Vignoles (2006) examining both GN and VN in undergraduates, retrospective reports of high parental overvaluation and low parental warmth were associated with both GN and VN, and VN was also related to attachment anxiety. However, this study did not examine psychological control. In a study by Miller and Campbell (2008), GN was associated with recollections of permissiveness during childhood, and VN was associated with recollections of psychological control, but this study did not examine parental overvaluation. In a study by Huxley and Bizumic (2017), self-reports of negative parenting (i.e., feeling invalidated by parents as a child) were associated with both GN and VN in undergraduates. This study did also not measure parental overvaluation. In sum, studies in undergraduates examining recollections of childhood parenting
have generally not been replicable, and no study that considers both GN and VN has yet determined which of all the implicated parenting styles predicts unique variance in narcissism.

Only a few studies have overcome the major limitation of retrospective reports of parenting by measuring parenting and child narcissism in the present. A recent study by Brummelman et al. (2015) that measured narcissism in children found that parents’ reports of overvaluing predicted their child’s self-reported GN, while parental warmth predicted the child’s self-esteem over four 6-month waves, however this study did not examine psychological control. Cramer (2011) conducted a 20-year longitudinal study that was the first to examine narcissism precursors in early childhood (defined by, histrionic, impulsive, and antagonistic tendencies) and found that if precocious tendencies were present at age 3 or 4, low maternal scores in permissive, indulgent, or authoritative parenting styles or high scores on authoritarian parenting increased the likelihood of GN in adulthood. They also found high maternal scores on permissive, indulgent, or authoritative parenting styles, or low scores on authoritarian parenting, predicted healthy narcissism independent of narcissism precursors. VN was not measured in either of these studies.

This review exemplifies a variety of methodological constraints, such as an overreliance on retrospective self-reports of another’s behaviour, and a lack of consistency in measured parenting dimensions and narcissism expressions, which make drawing conclusions difficult. In keeping with this, Longobardi (2016) recently conducted a systematic review on narcissism and parenting and concluded that the lack of convergence in methodology and operationalisation of constructs prevented any clear conclusions from being drawn. Having said this, an examination of the current empirical findings in light of the clinical theories described earlier reveals that parental overvaluation tends to align with the style of overvalued-parenting described in social learning theories and appears to be associated with GN (Longobardi, 2016). Additionally, the
concept of an ‘oblivious and overvalued special child’ matches the broader profile of GN as achievement and reward-focused, highly responsive to inflated praise, and extraverted yet antagonistic (Brummelman et al., 2017; Foster & Trimm, 2008; Miller et al., 2017).

By contrast, self-determination theory proposes that when significant others are devaluing or psychologically controlling, it increases one’s proneness to introjected regulation (an unconscious drive to gain others’ approval rather than self-fulfillment) and results in psychological vulnerability and unstable self-esteem (Ryan & Brown, 2008). The concept of a ‘hypervigilant, shamed child’ matches the broader profile of VN as shame-prone, highly sensitive to criticism or rejection, and emotionally labile yet antagonistic (Besser & Priel, 2010; Foster & Trimm, 2008; Miller et al., 2017). In sum, the emergent literature on VN and parenting suggests that psychological control aligns with the style of devalued-parenting described in psychodynamic perspectives, although this has not yet been investigated in child populations.

As summarised by Campbell and Miller (2011), to unify the field and understand the origins of narcissism, it is necessary to measure both dimensions of narcissism and to investigate the development of narcissism prospectively with parents and children. Before any intensive longitudinal studies are undertaken to elucidate the origins of narcissism in children, first the relevant variables to include in such a study need to be identified. There is a need to look at theory-driven parenting and narcissism studies, such that the styles of parenting that are assessed are theoretically related to the types of narcissism being studied, and shared variance between styles can be partialled out. Furthermore, it is necessary to look at child self-reports of child narcissism, and parent self-reports of parenting styles to measure actual rather than perceived parenting and self-appraisals, and to avoid shared method variance. A number of challenges are
involved in empirically testing clinical theories of parenting and narcissism. Yet these challenges must be confronted in order to understand the etiology and phenomenology of narcissism.

*The Role of Approach and Avoidance Temperament in Narcissism*

Diathesis-stress theories, that consider the potential for a child’s innate predispositions or temperament to interact with the parenting environment to produce narcissism, have been underemphasised in both the clinical and research narcissism literatures. Some clinicians have speculated that narcissism may develop in infants who are constitutionally sensitive and attuned to unstated emotional messages or expectations and thus become unconsciously exploited by and treated like ‘narcissistic extensions’ of their caregivers (McWilliams, 2011). Contemporary researchers have similarly proposed that narcissism may be rooted in early temperamental sensitivities and motivations (Elliot & Thrash, 2001). There is some evidence for genetic influences on psychopathic personality traits in adults (Livesly, Jang, Jackson, & Vernon, 1993; Tuvblad et al., 2017; Vernon, Villani, Vickers, & Harris, 2008). Behavioural genetic analyses estimate that around half of the variability in both pathological and trait narcissism scores may be due to genetic sources (Vernon et al., 2008). Thus, an exclusive focus on environmental sources (parenting) may be simplistic. In order to investigate the influence of temperamental sensitivities on narcissism development, relevant child variables first need to be investigated.

The most promising lead for the role of neurobiological sensitivities or predispositions in the development of narcissism is the literature on narcissism and approach-avoidance motivation. Approach-avoidance temperaments represent a motivational system and biological responsivity to positive or negative stimuli that often underlies personality traits, affective styles, and behaviours (Carver & White, 1994; Davidson, Ekman, Saron, Senulis, & Friesen, 1990; Gray, 1982). Gray’s (1982) conceptualisation describes two conflicting systems that underlie behaviour...
in both adults and children: an approach system that is responsive to reward and positive
emotions, and an avoidance system that is responsive to punishment and negative emotions
(Elliot & Thrash, 2002; Gray, 1982). Thus, each differ as a function of valence and represent
dimensions rather than mutually exclusive categories. Over time, these sensitivities to positive or
negative stimuli are thought to shape an individual’s environment, experiences, goals, and
ultimately, his/her personality (Elliot & Trash, 2002; Rothbart, 2007). Narcissistic individuals
have long been described as inordinately responsive to approval/reward or sensitive to criticism/
failure and have also been found to have personality traits (e.g., extraversion and neuroticism)
that reflect approach or avoidance dimensions, respectively (Elliot & Thrash, 2002). Thus these
dimensions may also explain some of the observed differences in the two narcissism expressions.

To date, no study has examined the relationship between approach-avoidance
responsivity and child narcissism, but research involving adults has shown that self-reported
approach-avoidance motivation is indeed associated with narcissism and can distinguish between
GN and VN. Specifically, GN predicts high approach-motivation and low avoidance-motivation
in undergraduates (Foster & Trimm, 2008). This means that, as predicted, individuals high in GN
are strongly motivated towards reward and valued outcomes and see them as the most probable
result of their behaviour. Moreover, they are also weakly motivated towards potentially aversive
outcomes and this motivation is surpassed by a valued outcome (Foster, Shensey, & Goff, 2009).
This explains findings that show GN to be associated with potentially risky behaviours, such as
investing in volatile stocks that have the opportunity for large rewards or losses (Foster, Misra, &
Reidy, 2009). On the other hand, VN predicts high avoidance motivation and is unrelated to
approach motivation, which means that individuals high in VN are strongly motivated to avoid
aversive outcomes (Foster & Trimm, 2008). Thus for VN, self-aggrandisement may be passive
(avoid devaluation) rather than active (achieve overvaluation). In sim, a critical distinction between GN and VN is their orientation towards valued and aversive outcomes.

Although temperament alone is unlikely to cause narcissism, when paired with the kinds of overvaluing and devaluing parenting styles described above, an individual’s sensitivities and motivations towards reward or punishment are likely to be reinforced. Environmental cues other than parenting styles may also potentially contribute to reinforcing narcissistic tendencies. For example, although inflated feedback is likely to be a characteristic of parent overvaluation, this behaviour is also likely to be characteristic of other relationships, and evident in schools and work cultures. Similarly, while shaming feedback is likely to be characteristic of parent devaluation, it can also characterise other relationships, and evident in schools and work cultures. Because VN is associated with avoidance motivation (in adults), children high in VN also be particularly motivated to avoid shameful experiences. Similarly, GN is associated with approach motivation (in adults), thus children high in GN may be especially motivated towards inflation.

*Self-esteem Enhancement: Inflated Praise Backfires*

The goal of self-esteem enhancement in children became an American imperative following the self-esteem movement of the 1980s, and its widespread influence on schools, parenting, and even the workplace, seems to have contributed to the normalisation of inflated self-views and inflated feedback (Baumeister et al., 2003; Twenge & Campbell, 2009). Research on self-esteem in children has demonstrated the curious backfire effect that self-esteem enhancement strategies can have. Inflated praise is a strategy used by parents and teachers to boost or raise children’s self-esteem (Brummelman et al., 2014, 2015). Praise is considered inflated when it contained an adverb (e.g., that is an *incredibly* beautiful drawing) or adjective (e.g., that drawing is *perfect*) signaling an overly positive evaluation (Brummelman et al., 2014).
Curiously, inflated praise offered by a prestigious stranger about one’s drawing had no immediate effect on children with high self-esteem, yet in children with low self-esteem it decreased subsequent challenge-seeking (Brummelman et al., 2014).

Over time, parent-reports of inflated praise predict lower child-reported self-esteem in children with low self-esteem initially, and higher GN in children with high self-esteem initially (Brummelman et al., 2017). In no case did inflated praise raise self-esteem as predicted in this study. The results of a recent study also showed that following a performance, praise that was not inflated was shaming for children high in GN, as indicated by blushing (Brummelman, Nikolic, & Bogels, 2018). Blushing is an involuntary physiological response that is thought to reveal feelings of shame (Brummelman et al., 2018). Inflated praise following a performance was also associated with blushing in socially anxious children (Nikolic et al., 2018). These studies indicate that, in vulnerable children, inflated praise may be perceived as aversive (rather than rewarding) feedback and cause children to feel ashamed, rather than special. On the other hand, for grandiose children, regular (but still positive) praise may be perceived as aversive feedback (Brummelman et al., 2018). These findings again reinforce Fiscalini’s (1993) description of the VN/GN dichotomy as the infantilised/shamed child and the uncivilised/special child.

Unstable Inflation: Is Shame the Affective Core of Narcissism?

In the clinical literature, shame is recurrently stressed as the key affect associated with narcissism in adults (Broucek, 1982). Narcissistic self-regulation in particular is thought to be driven by the fundamental self-conscious emotions, shame and pride (Kernis, 2003; Broucek, 1982). In this way, shame is thought to represent self-regulation failures while pride represents effective self-regulation. Negative self-conscious emotions are thought to develop in late childhood and signal fears of interpersonal rejection (Leary, Koch, & Hechenbleikner, 2001).
failure to live up to ideal self-representations (Tracey & Robins, 2004). Shame, in particular, has been described as the internalisation of parents’ negative affective reactions to the child that later become unconscious motivators in adulthood (Assor & Tal, 2012; Cooley, 1902; Selman, 1980). Furthermore, both Kernberg (1975) and Kohut (1972) described a clinical phenomenon called *narcissistic rage*, which was seen as an intense fusion of shame and anger that appears to be linked to emotional reactivity to perceived negative feedback about the self. This reactivity to feedback about the self has also been described as ‘threatened egotism’ in the empirical literature (Baumeister, Heatherton, & Tice, 1993).

Anger is a functional approach to aversive stimuli (Novaco, 1997), thus an oversensitivity to aversive stimuli (avoidance-motivation) may result in frequent or disproportionate anger. Indeed, VN has been found to be an important driver of shame, anger, and aggression in adults (Krizan & Johar, 2012, 2015). In contrast, there is an inconsistent relationship between GN and shame, as well as GN and anger in adults (Gramzow & Tangney, 1992; Witte, Callahan, & Perez-Lopez, 2002). However, potentially shame-inducing feedback is a common experience of childhood (e.g., social rejection, upward social comparisons, and negative feedback) and has been found to predict increased anger and aggression in adolescents high in GN (Thomaes et al., 2011; Twenge & Campbell, 2003). Understanding the role of shame in narcissism (especially VN) and self-enhancement may be crucial to understanding reactivity to aversive feedback.

**Overview of the Current Research**

The reviewed evidence suggests that VN may be essential to understanding the (mal)adaptiveness of narcissism in children and is likely to have significant deleterious consequences prior to adulthood. This introductory chapter demonstrates the necessity of distinguishing between GN and VN in theory and in measurement. Research using the NPI and
its downward extensions has shown that GN appears to manifest in similar ways in adults, undergraduates, adolescents, and children. However, there is an incomplete picture of how vulnerable and defensive self-views develop. No measure exists for VN prior to adulthood, and even the adult literature is lacking a valid measure that accurately represents both GN and VN. Such a measure is essential before one can explore the phenomenology and development of narcissism in a way that addresses the limitations identified in the current review.

It is assumed that childhood narcissism is the result of normative developmental processes gone awry (Kernberg, 1975; Kohut, 1977). In line with current childhood narcissism and self-esteem research, the current thesis examines self-views in children aged 8 to 12 years (e.g., Harter, 2012; Thomaes et al., 2008). At 8 years old, children are able to self-report their self-appraisals. Furthermore, important developmental changes occur during this period that may be relevant to the development of narcissism. Young children typically have unrealistically positive self-views. Around middle childhood, children’s self-esteem often declines as they learn to discriminate between their ideal and actual self and gain the ability to use social comparison information in self-evaluations, allowing for a more realistic self-appraisal (Harter, 2012). At the transition into adolescence, children become more influenced by how others perceive them but also gain more personal autonomy as they develop a more differentiated individual personality (Harter, 2012). However, mature personality traits do not typically develop until late adolescence (Roberts & Wood, 2006).

This thesis examines differences in the expression, adaptiveness, and measurement of various self-appraisals in children, adolescents, and adults. The current dissertation investigates the multidimensional nature of narcissism and the implications of distinguishing between grandiose and vulnerable narcissism in five empirical chapters.
The proposed series of studies aims to:

1. Investigate the heterogeneity and assessment of trait narcissism in adults.
2. Identify the core and peripheral characteristics of narcissism in adults.
3. Enable the assessment of grandiose and vulnerable dimensions of narcissism in children and adolescents.
4. Explore the role of parenting styles and approach-avoidance motivations in grandiose and vulnerable narcissism in children.
5. Explore the role of narcissism in children’s affective reactions to an aversive experience.
References


withdrawal and cerebral asymmetry: Emotional expression and brain physiology: I. 


Foster, J. D., Shiverdecker, L. K., & Turner, I. N. (2016). What does the narcissistic personality
inventory measure across the total score continuum? Current Psychology, 35(2), 207.


1826-1826.


Longobardi, C. (2016). Can parenting styles affect the children’s development of narcissism?
*The Open Psychology Journal, 9,* 84-94.


Roberts, B. W., Edmonds, G., & Grijalva, E. (2010). It is developmental me, not generation me: Developmental changes are more important than generational changes in narcissism—Commentary on Trzesniewski & Donnellan (2010). *Perspectives on Psychological Science, 5*(1), 97-102.


Twenge, J. M., Konrath, S., Foster, J. D., Keith Campbell, W., & Bushman, B. J. (2008). Egos inflating over time: A cross-temporal meta-analysis of the Narcissistic Personality Inventory. *Journal of Personality, 76*(4), 875-902.


Chapter 2

Foreword

Chapter 1 reviewed growing agreement in the literature that grandiose narcissism (GN) and vulnerable narcissism (VN) constitute the major expressions of narcissism. Yet, despite this agreement, narcissism nomenclature is still used inconsistently and no scale currently exists that captures both narcissism dimensions in a way that is consistent with their theoretical differences and empirical evidence for their diverse nomological networks. Chapter 1 also reviewed conceptualisations of narcissism in adults that have described a third ‘healthy’ dimension of narcissism that needs further investigation.

To address these issues, the studies reported in Chapter 2 sought to develop a scale that examined the structure of a broad range of narcissism items. Three factors were hypothesised. However, the resultant factor structure of the Narcissism Scale supported a bifurcated model of narcissism, with higher-order GN and VN factors each being divisible into intrapersonal and interpersonal lower-order factors of narcissism. In these studies, GN and VN factors were not significantly correlated with each other and showed divergent patterns of relations to personality traits, approach-avoidance motivation, and self-esteem. Yet, both factors were associated with entitlement and self-reported aggression, suggesting a shared narcissism core. The studies in Chapter 3 demonstrate that, in order to advance our understanding of the underlying narcissism construct, it is necessary to clearly delineate and measure both GN and VN in a way that balances their intrapersonal as well as their interpersonal characteristics.

This chapter was published in The European Journal of Personality Assessment.
Chapter 2. Toward Understanding and Measuring Grandiose and Vulnerable Narcissism within Trait Personality Models
Abstract

Research on trait narcissism is hindered by considerable confusion over its underlying structure. In particular, differences between pathological and normal narcissism, and grandiose and vulnerable narcissism. To address this problem, two studies are described that examine the factor structure of a broad range of narcissism items and the implications for current narcissism theory.

In Study 1, 881 undergraduates completed a scale composed of items taken trans-theoretically from narcissism scales that targeted grandiose, vulnerable, and normal narcissism descriptions. An exploratory factor analysis (EFA) was conducted and construct validity was established. In Study 2, 298 community-based participants were surveyed. Fit indices of a reduced 20-item scale and test-retest reliability were examined. Both studies supported a hierarchical structure of distinct grandiose and vulnerable factors, each with interpersonal and intrapersonal components. Thus, trait narcissism seems best described by grandiose and vulnerable dimensions, each of which can be focused towards the self or others.

Keywords: narcissism, grandiose, vulnerable, scale development, factor analysis
Toward Understanding and Measuring Grandiose and Vulnerable Narcissism within Trait Personality Models.

Since Generation ‘Me’ and the cultural changes experienced by the baby boomers, there has been increased concern over the rise of narcissistic personality traits in Western society. This interest has not been confined to academia. Narcissistic personality traits have also drawn attention from main-stream media and the entertainment industry (Twenge & Campbell, 2009). A narcissistic personality is generally characterised by unrealistic expectations, resistance to negative feedback, and inflated self-appraisals. Although the word ‘narcissism’ evokes the clinical diagnosis Narcissistic Personality Disorder the present study is concerned with trait narcissism. Personality models conceptualise narcissism as existing in most individuals along a normally distributed continuum, with the difference between subclinical and clinical narcissism a matter of severity and impairment rather than type (Bushman & Baumeister, 1998; Foster & Campbell, 2007). This approach does not imply that trait narcissism is healthy or adaptive, but rather, that narcissism can be associated with a range of adaptive and maladaptive outcomes depending on how thoroughly the narcissistic needs dominate the personality, as well as individual differences in managing and expressing them.

Despite the extensive interest and research on narcissism, the literature suffers from a fundamental criterion problem (Pincus & Lukowitsky, 2010). That is, because narcissism is inconsistently defined and assessed, it is difficult to integrate information provided by each field and to accurately determine its causes and consequences. For example, researchers tend to view narcissism dimensionally, with both adaptive and maladaptive consequences (Ackerman et al., 2010), whereas clinicians tend to hold a categorical view of narcissism as pathological in its clinical form and normal in its non-clinical form (Roche et al., 2013). There is also disagreement
as to the structure and nomenclature of narcissism. While most of the literature agrees that narcissism is multidimensional, there is substantial variation in the labels and descriptions of the different types of, and factors within, narcissism. To integrate the field and advance knowledge, it is crucial to resolve these differences (Cain, Pincus, & Ansell, 2008; Corry, Merritt, Mrug, & Pamp, 2008). Thus, the aim of the current study was to bring diverse descriptions of narcissism together such that the underlying structure of narcissism could be understood and measured.

Despite their differences, social/personality research and clinical theory and diagnosis generally converge on two broad themes within narcissism. Heinz Kohut (1971) originally proposed two types of narcissism, one characterised by overt grandiosity/entitlement and chronic repression of feelings of inadequacy, the other characterised by covert feelings of grandiosity/entitlement that alternate with conscious experience of inadequacy. Over the next 40 years, much of the conceptual, clinical, and empirical literature similarly classified narcissism according to two themes, which have become widely known as *Grandiose Narcissism* (GN) and *Vulnerable Narcissism* (VN; For a thorough list of the labels used to describe these two themes presented in tabular form, see Cain et al., 2008, p. 641). These two dimensions of narcissism differ in regard to etiology, basic traits, attachment, relationship styles, psychopathology, and behaviour (Campbell & Miller, 2011), and have been verified using factor analysis (Corry et al., 2008; Russ, Shedler, Bradley, & Westen, 2008; Wink, 1991, 1992) and correlational methods with self-, other-, and expert- reports (Dickinson & Pincus, 2003; Maxwell, Donnellan, Hopwood, & Ackerman, 2011; Miller & Campbell, 2008; Rohmann, Neumann, Herer, & Bierhoff, 2012).

GN is characterised by a grandiose and arrogant sense of self, together with an antagonistic interpersonal style. GN can appear to be adaptive *intrapersonally*, in that these individuals score highly on measures of social potency, assertiveness, self-esteem, and
extraversion; however, these individuals also score low in agreeableness, modesty, honesty, and sincerity (Miller & Maples, 2011). Further, interpersonally, GN is associated with substantial dysfunction, as their inflated self-appraisal is still sensitive to ego-threat (Bushman & Baumeister, 1998). Indeed, GN is associated with antagonism and an interpersonal style that includes exploitativeness, greed, and a disregard for the rights of others (Miller & Maples, 2011).

Like GN, VN is characterised by beliefs of superiority and entitlement, as well as low agreeableness and empathy (Dickinson & Pincus, 2003; Miller & Campbell, 2008). However, their grandiose fantasies and entitled expectations are kept hidden due to fears of rejection or lack of recognition and may not be initially discernable. Thus, VN is the intrapersonally impaired narcissism phenotype. These individuals score low in measures of self-esteem (Rose, 2002), and high in measures of shame (Cain et al., 2008), envy (Krizan & Johar, 2012), and internalising symptoms (Pincus & Lukowitsky, 2010). Their unstable self-worth and difficulties self-regulating (Cain et al., 2008; Roche et al., 2013) result in interpersonal dysfunction, such as aggression, rejection, and social avoidance (Miller & Maples, 2011). While GN (also known as oblivious narcissism) involves a lack of insight and consequent emotional resilience, VN (also fragile narcissism) entails distress and negative life trajectories (Rose, 2002; Wink, 1992).

In their review of the literature, Campbell and Miller (2011) cited, as the first imperative for future research, that the field recognise the distinction between GN and VN. However, another distinction that has proliferated within the narcissism literature that is not consistent with this imperative is that between normal and pathological narcissism (Pincus & Lukowitski, 2010). Normal narcissism is described as an emotionally resilient, extraverted form of narcissism that is associated with individuals who are “ambitious, satisfied, and relatively successful,” (Pincus & Lukowitski, 2010, p. 6) and is believed to be analogous to high-functioning/autonomous
narcissism (see Russ et al., 2008 and Wink, 1992). In contrast, pathological narcissism is thought
to describe a troubled and susceptible type of narcissism that is associated with significant
impairment and distress, and which concurrently includes narcissistic grandiosity and
narcissistic vulnerability (Pincus & Lukowitski, 2010). In Pincus and colleagues’ (2009, 2010)
conceptualisations, narcissistic grandiosity and vulnerability are analogous to GN and VN as
described above, but rather than being distinct types of narcissism, they are two states of
pathological narcissism prone to oscillate within the same individual. Normal narcissism is
believed to be categorically different from pathological narcissism and it is not known if the GN
and VN distinction is measurable within this form of narcissism (Pincus & Lukowitsky, 2010).

To assess pathological narcissism, Pincus et al. (2009) developed the Pathological
Narcissism Inventory (PNI). The PNI is a 52-item scale with two higher-order factors:
grandiosity and vulnerability. However, the PNI grandiosity factor does not approximate the GN
phenotype described in much of the literature. Despite substantial evidence that GN and VN
relate in opposite directions with self-assurance (extraversion) and psychological adjustment
(self-esteem; see Miller & Maples, 2011; Russ et al., 2008; Wink, 1991), most PNI grandiosity
scales are negatively related to self-esteem and positively related to shame, associations that are
typically expected of VN (Pincus et al., 2009). Further, the grandiosity scales are more strongly
related to scales of VN than other GN scales (Pincus et al., 2009). In fact, all but one of the seven
PNI subscales correlate negatively with self-esteem and positively with VN (Pincus et al., 2009).
As such, the PNI may more closely approximate VN than represent both GN and VN equally.

To measure normal narcissism, Pincus et al. (2009) recommended the Narcissistic
Personality Inventory (NPI; Raskin & Hall, 1979), as it is generally conceded that the NPI
measures a non-distressed, predominantly grandiose expression of narcissism (Rosenthal &
Hooley, 2010). However, we are inclined to agree with authors who posit that the construct measured by the NPI is not necessarily ‘normal’ (Ackerman et al., 2010; Maxwell et al., 2011). The NPI is associated with psychosocial maladjustment, including impulsivity (Vazire & Funder, 2006), substance abuse (Carter, et al., 2012), and aggression (Bushman & Baumeister, 1998). In fact, scores on the NPI and PNI both correlate moderately with Narcissistic Personality Disorder symptoms, suggesting that extreme scores in either may represent pathology (Maxwell et al., 2011). As Russ et al. (2008) indicated, this aligns with research that identifies two pathological narcissism subtypes, one characterised by high self-esteem and a lack of insight and distress, the other by an undercurrent of negative affect. Given that narcissism research (PNI inclusive) is often conducted on undergraduate samples, there is reason to suspect that the GN/VN distinction is also relevant in subclinical populations. Seen in this way, normal and pathological narcissism as defined by Pincus et al. (2009) may be synonymous with GN and VN, respectively, with each manifesting at both normal and clinical ends of the narcissism continuum. Research that contributes to resolving this question is needed to avoid perpetuating the criterion problem in narcissism research. If normal narcissism is indeed a third dimension of narcissism, distinct from GN and VN, as some research has proposed (Roche et al., 2013; Russ et al., 2008; Wink, 1992), clear evidence and an appropriate measure for this distinction needs to be established.

To understand the nature of trait narcissism, it is essential to bring together these diverse concepts and provide a substantive test of its underlying structure. This will not only contribute to resolving the criterion problem; such an endeavor will also enable a clear and comprehensive scale to be developed. To our knowledge, there is currently no single measure that separates the different narcissism dimensions at a subclinical level, despite compelling evidence from both clinical descriptions and personality research with undergraduates that they exist. Although
comprehensive narcissism scales have been designed in the last few years, these scales are limited by either a failure to measure VN (e.g., the Narcissistic Admiration and Rivalry Questionnaire; Back et al., 2013), or by a breadth of assessment that may discourage use for most social/personality research (e.g., the 150-item, 15-factor Five-Factor Narcissism Inventory; Glover et al., 2012).

Thus, the purpose of this research was to understand the structure of trait narcissism and develop a brief yet comprehensive scale that has good psychometric properties and is appropriate for non-clinical populations. Two studies are presented that address these aims. In Study 1, narcissism items were collated from a wide range of sources that distinguish between narcissism dimensions (GN, VN, and normal narcissism). The factor structure of these items was then examined in a large sample of undergraduates. In Study 2, this factor structure was confirmed using a partial confirmatory factor analysis and test-retest reliability was examined in a community-based sample. Construct validity was established in both studies, with constructs chosen based on theoretical and empirical research that differentiate between narcissism expressions. Constructs were either highly characteristic of narcissism (e.g., aggression, entitlement, and disagreeableness), or able to distinguish between different types of narcissism (e.g., behaviour inhibition, contingent self-worth, extraversion, self-esteem, and psychological well-being), and would therefore aid in interpreting factors.

**Study 1**

**Method**

**Generation of the Narcissism Scale (NS) Item Pool.** Because recent literature has increasingly advocated three dimensions of trait narcissism (VN, GN, normal; Roche et al., 2013; Russ et al., 2008; Wink, 1992), items were included for each category to test a three factor
structure of trait narcissism. In an attempt to provide an exhaustive and comprehensive item pool, items were taken or modified from a wide range of sources: California Q-set narcissism prototype (Wink, 1992), Hypersensitive Narcissism Scale (Cheek, Hendin, & Wink, 2013), PNI (Pincus et al., 2009), Psychological Entitlement Scale (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004), Narcissistic Grandiosity Scale (Rosenthal, Hooley, & Steshenko, 2007), Interpersonal Exploitativeness Scale (Brunell et al., 2013), NPI (Raskin & Hall, 1979), the Childhood Narcissism Scale (Thomaes et al., 2008), the diagnostic criteria of the DSM-5 (APA, 2013), clinicians descriptions (Russ et al., 2008), and diagnostic trait facets (Rohmann et al., 2012).

The scales cited above were combined into a large item pool (266 items) and were clustered into core facets according to common themes in the literature and the factor analyses reported. These facets could be broadly summarised as grandiosity, dominance, entitlement, exploitativeness, contingent self-worth, avoidance, and included interpersonal and intrapersonal indicators of vulnerable, grandiose, and normal narcissism. Facets that did not have strong empirical support or discriminant validity were removed (e.g., vanity and self-sufficiency). The final facets and their item content were reviewed by all authors for construct coverage. Items within each facet were then rated by the first author according to content relevance and psychometric quality. When two or more items were highly overlapping in content, the most clearly worded item (as determined by consensus of authors at meetings) was retained. The final wording and selection of items were decided by all authors. Items were chosen that would allow for individual differences to emerge, that would minimise content overlap, and that would be understandable by adults with a basic reading level. A total inventory of 36 items were used for
the initial study. A 5-point Likert scale ranging from 1 (*Strongly agree*) to 6 (*Strongly disagree*) was used to obtain variability in responses.

**Participants.** This study consisted of 895 first year psychology students (68% female), aged 18-74 years (*M* = 22.41, *SD* = 6.80). The self-reported ethnicity of the sample was 66.8% Australian, 21.6% Asian, 4.9% European, 2.1% Indian, 1.6% African, 1.2% Aboriginal, 1.1% New Zealand, and 0.7% American.

**Procedure.** Students were invited to participate in a research survey as part of a first year psychology unit. Participation was voluntary and consent obtained. Participants were not required to explain why they did not complete the survey if they chose not to do so. The study was placed online in order to minimise burden on participants and increase participation.

**Measures.** *16-item Narcissistic Personality Inventory* (NPI-16; Ames et al., 2006). The NPI-16 is a 16-item short version of the NPI (Raskin & Hall, 1979). The scale is used as a self-report unidimensional measure of (grandiose) trait narcissism. Participants choose between a non-narcissistic and narcissistic statement for each item (*α* = .72, *M* = 1.21, *SD* = 0.18).

The NPI is by far the most popular measure of narcissism used in social/personality research and has been integral in shaping how trait narcissism is conceptualised in the literature. NPI-16 items were used in both item generation and scale validation; however the final overlap was not beyond what is expected of a narcissism scale comparison, with zero identical items and four similar items between the scales.

*Rosenberg Self-Esteem Scale* (RSE; Rosenberg, 1965). The RSE is a widely used 10-item self-report measure of global self-worth that participants rate using a 4-point Likert scale, higher scores indicating greater self-esteem (*α* = .89, *M* = 2.79, *SD* = 0.49).
Academic Entitlement (AE; Jackson, Singleton, & Frey, 2011). To assess entitlement, the 7-item accommodation factor from the AE was used, as it captures a lack of personal responsibility and emotional intelligence (Jackson et al., 2011). Both of which are central to entitlement ($\alpha = .76$, $M = 1.78$, $SD = 0.44$).

Behaviour Inhibition/Activation Scales (BIS/BAS; Carver & White, 1994). BIS consists of one scale (7-items) that measure avoidance motivation and three scales (13-items) that measure approach motivation. Items are rated on a 4-point scale with higher scores indicating greater approach/avoidance (BIS, $\alpha = .77$, $M = 1.91$, $SD = 0.48$; BAS reward responsiveness $\alpha = .82$, $M = 1.59$, $SD = 0.48$, BAS drive, $\alpha = .86$, $M = 2.41$, $SD = 0.69$; BAS fun-seeking, $\alpha = .79$, $M = 2.10$, $SD = 0.60$).

Revised Life Orientation Test (Scheier, Carver, & Bridges, 1994). The Revised Life Orientation Test is a 6-item self-report measure of dispositional optimism. Items are rated on a 5-point Likert scale with high scores indicating high optimism ($\alpha = .73$, $M = 3.27$, $SD = 0.34$).

10-item Big Five Inventory (BFI-10; Rammstedt & John, 2007). The BFI-10 is a 10-item self-report measure of personality as defined by five dimensions. Items are rated on a 5-point scale. The five factors of personality are (neuroticism, $\alpha = .54$, $M = 3.20$, $SD = 0.96$; extraversion, $\alpha = .60$, $M = 3.06$, $SD = 0.91$; openness $\alpha = .48$, $M = 3.63$, $SD = 0.85$; agreeableness, $\alpha = .54$, $M = 3.77$, $SD = 0.64$; conscientiousness, $\alpha = .49$, $M = 3.61$, $SD = 0.57$).

Data Analyses. The aim was to determine the factor structure underlying the items and refine the items to form a scale, and examine its psychometric properties and construct validity.

Results

Factor Analysis. To examine the factor structure of the NS, an exploratory factor analysis (EFA) was conducted using maximum likelihood extraction with direct oblimin rotation.
Prior to running the analyses, assumptions were checked and the data screened for outliers. Using z-scores, 14 univariate outliers were identified and removed. No multivariate outliers were identified. Missing values were then analysed using Little’s MCAR test. Data was found to be missing completely at random and were replaced with the mean.

The scree test suggested two or four factors, and eight eigenvalues were greater than one (Initial Eigenvalues >1: 6.61, 3.96, 1.96, 1.66, 1.26, 1.22, 1.05, 1.03). Eight factors were considered a maximum and all three solutions were examined. The sequence of factors that emerged from the two- and four-factor solutions were the cleanest in that there were at least three indicators for each factor. The four-factor solution yielded two factors for each dimension of narcissism (GN and VN). The two-factor solution combined the two contributing factors into a single factor for each dimension. We took this as initial evidence for a higher-order factor structure and retained the four-factor model. Items were removed that had low loadings and/or high cross loadings (Costello & Osbourne, 2005). Using this method, the total number of items were reduced from 36 to 22. Examination of the retained and deleted items showed that the average of the retained items correlated strongly with the average of the deleted items, $r(881) = .77$, $p < .001$, indicating that no aspect of narcissism was lost in the selection process.

The first factor was labeled Interpersonal VN ($\alpha = .74$, $M = 2.45$, $SD = 0.64$) as it captured vulnerable feelings towards others, such as entitlement, avoidance, devaluing, and uniqueness. Factor loadings ranged from .37 to .66. The second factor was labeled Intrapersonal VN ($\alpha = .72$, $M = 3.17$, $SD = 0.72$) because it captured vulnerable negative emotions, such as contingent self-worth, shame, envy, and hostility. Factor loadings ranged from .46 to .76. The third factor was labeled Interpersonal GN ($\alpha = .70$, $M = 2.97$, $SD = 0.67$), reflecting grandiose narcissistic relations with others, including exploitativeness, manipulativeness, omnipotence, and
authority. Factor loadings ranged from .44 to .67. The fourth factor was labeled \textit{Intrapersonal} \textit{GN} ($\alpha = .72$, $M = 2.94$, $SD = 0.61$), reflecting grandiose narcissistic self-reflections, including specialness, fantasy, power, and exhibitionism. Factor loadings ranged from .41 to .64.

**Validity Analyses.** The two GN subscales and the two VN subscales were significantly correlated, $r(881) = .44$, $p < .001$ and $r(881) = .41$, $p < .001$, respectively, and the correlations between the GN and VN subscales were non-significant. As expected, the NPI-16 was strongly correlated with inter- and intra-personal GN, $r(881) = .59$, $p < .001$ and $r(881) = .52$, $p < .001$, but not significantly associated with VN factors. These correlations were comparable with the overlapping items removed, GN, $r(881) = .57$, $p < .001$ and $r(881) = .47$, $p < .001$ (there was no overlap in VN subscales). Also as predicted, inter- and intra-personal GN were positively related to self-esteem, $r(881) = .21$, $p < .001$ and $r(881) = .49$, $p < .001$, while inter- and intra-personal VN were negatively related to self-esteem, $r(881) = -.36$, $p < .001$ and $r(881) = -.40$, $p < .001$.

To examine the external validity of the NS scales, as well as the incremental and discriminant validity of the factors (grandiose and vulnerable, as well as intrapersonal and inter-personal), correlations and regression analyses were conducted and are presented in Table 2.1. While the GN subscales and the NPI-16 had comparable patterns of correlations, both were clearly not synonymous with high self-esteem and differed from VN substantially. GN scales were positively related with entitlement, BAS scales, optimism, and extraversion, and negatively correlated with BIS and neuroticism. On the other hand, VN scales were positively related to entitlement, BIS, and neuroticism, and negatively related to optimism and agreeableness.

The regression analyses confirmed the differential predictive ability of GN and VN and showed that VN added significant, unique variance over and above GN. This was particularly salient in the cases of fun-seeking, optimism, and extraversion, in which the semi-partial
Table 2.1

Convergent, Incremental, and Discriminant Validity of the Narcissism Scale in an Undergraduate Sample

<table>
<thead>
<tr>
<th></th>
<th>Academic Entitlement</th>
<th>BIS Reward</th>
<th>BAS Drive</th>
<th>BAS Fun-Seeking</th>
<th>Optimism</th>
<th>BFI-10 Neuroticism</th>
<th>BFI-10 Extraversion</th>
<th>BFI-10 Openness</th>
<th>BFI-10 Agreeableness</th>
<th>BFI-10 Conscientious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>-.13**</td>
<td>-.43**</td>
<td>.25**</td>
<td>.24**</td>
<td>.21**</td>
<td>-.32**</td>
<td>-.48**</td>
<td>.37**</td>
<td>.02</td>
<td>.15**</td>
</tr>
<tr>
<td>NPI-16</td>
<td>.17**</td>
<td>-.27**</td>
<td>.08*</td>
<td>.26**</td>
<td>.17**</td>
<td>.20**</td>
<td>-.34**</td>
<td>.34**</td>
<td>.10**</td>
<td>-.16**</td>
</tr>
<tr>
<td>GN Intra</td>
<td>.10**</td>
<td>-.22**</td>
<td>.23**</td>
<td>.39**</td>
<td>.27**</td>
<td>.29**</td>
<td>-.29**</td>
<td>.31**</td>
<td>.14**</td>
<td>.02</td>
</tr>
<tr>
<td>GN Inter</td>
<td>.13**</td>
<td>-.25**</td>
<td>.09*</td>
<td>.33**</td>
<td>.24**</td>
<td>.19**</td>
<td>-.31**</td>
<td>.33**</td>
<td>.16**</td>
<td>-.15**</td>
</tr>
<tr>
<td>VN Intra</td>
<td>.17**</td>
<td>.47**</td>
<td>.06</td>
<td>.01</td>
<td>.01</td>
<td>-.21**</td>
<td>.38**</td>
<td>.05</td>
<td>.01</td>
<td>-.15**</td>
</tr>
<tr>
<td>VN Inter</td>
<td>.23**</td>
<td>.22**</td>
<td>-.12**</td>
<td>-.03</td>
<td>-.13**</td>
<td>-.13**</td>
<td>.26**</td>
<td>-.21**</td>
<td>-.01</td>
<td>-.26**</td>
</tr>
<tr>
<td>Regression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>.02**</td>
<td>.08**</td>
<td>.03**</td>
<td>.18**</td>
<td>.09**</td>
<td>.08**</td>
<td>.12**</td>
<td>.14**</td>
<td>.03**</td>
<td>.01*</td>
</tr>
<tr>
<td>Step 2</td>
<td>(.05**</td>
<td>.17**</td>
<td>.00</td>
<td>.01**</td>
<td>.05**</td>
<td>.16**</td>
<td>.04**</td>
<td>.00</td>
<td>.05**</td>
<td>.05*</td>
</tr>
<tr>
<td>Step 3</td>
<td>(.12**</td>
<td>(.30**)</td>
<td>(.19**)</td>
<td>(.42**)</td>
<td>(.30**)</td>
<td>(.28**)</td>
<td>(.34**)</td>
<td>(.38**)</td>
<td>(.17**)</td>
<td>(-.08*)</td>
</tr>
<tr>
<td>Step 4</td>
<td>(.23**)</td>
<td>(.42**)</td>
<td>(.05)</td>
<td>(.01)</td>
<td>(.10**)</td>
<td>(.22**)</td>
<td>(.40**)</td>
<td>(.19**)</td>
<td>(.01)</td>
<td>(-.23**)</td>
</tr>
<tr>
<td>Total R²</td>
<td>.07**</td>
<td>.25**</td>
<td>.04**</td>
<td>.18**</td>
<td>.10**</td>
<td>.12**</td>
<td>.28**</td>
<td>.18**</td>
<td>.03**</td>
<td>.06**</td>
</tr>
<tr>
<td>VN Intra</td>
<td>(.10**)</td>
<td>(.22**)</td>
<td>(.23**)</td>
<td>(.39**)</td>
<td>(.27**)</td>
<td>(.29**)</td>
<td>(.29**)</td>
<td>(.31**)</td>
<td>(.14**)</td>
<td>(.00)</td>
</tr>
<tr>
<td>Step 2</td>
<td>(.01*)</td>
<td>.02**</td>
<td>.00</td>
<td>.02**</td>
<td>.00</td>
<td>.04**</td>
<td>.05**</td>
<td>.01**</td>
<td>.02**</td>
<td>.00</td>
</tr>
<tr>
<td>Step 3</td>
<td>(.05)</td>
<td>(.12**)</td>
<td>(.21**)</td>
<td>(.27**)</td>
<td>(.18**)</td>
<td>(.23**)</td>
<td>(.15**)</td>
<td>(.17**)</td>
<td>(.08*)</td>
<td>(.07)</td>
</tr>
<tr>
<td>Step 4</td>
<td>(.09*)</td>
<td>(.16**)</td>
<td>(.03)</td>
<td>(.16**)</td>
<td>(.12**)</td>
<td>(.05)</td>
<td>(.19**)</td>
<td>(.21**)</td>
<td>(.10**)</td>
<td>(.16**)</td>
</tr>
<tr>
<td>Total R²</td>
<td>.02**</td>
<td>.07**</td>
<td>.05**</td>
<td>.18**</td>
<td>.09**</td>
<td>.09**</td>
<td>.12**</td>
<td>.14**</td>
<td>.03**</td>
<td>.02**</td>
</tr>
<tr>
<td>VN Intra</td>
<td>(.17**)</td>
<td>(.47**)</td>
<td>(.06)</td>
<td>(.01)</td>
<td>(.01)</td>
<td>(.21**)</td>
<td>(.38**)</td>
<td>(.05)</td>
<td>(.01)</td>
<td>(.15**)</td>
</tr>
<tr>
<td>Step 2</td>
<td>.03**</td>
<td>.03**</td>
<td>.00</td>
<td>.02**</td>
<td>.00</td>
<td>.01**</td>
<td>.06**</td>
<td>.00</td>
<td>.04**</td>
<td>.00</td>
</tr>
<tr>
<td>Step 3</td>
<td>(.08*)</td>
<td>(.41**)</td>
<td>(.13**)</td>
<td>(.02)</td>
<td>(.05)</td>
<td>(.17**)</td>
<td>(.29**)</td>
<td>(.06)</td>
<td>(.02)</td>
<td>(.04)</td>
</tr>
<tr>
<td>Step 4</td>
<td>(.18**)</td>
<td>(.02)</td>
<td>(.17**)</td>
<td>(.03)</td>
<td>(.14**)</td>
<td>(.05)</td>
<td>(.11**)</td>
<td>(.21**)</td>
<td>(.02)</td>
<td>(.21**)</td>
</tr>
<tr>
<td>Total R²</td>
<td>.06**</td>
<td>.22**</td>
<td>.03**</td>
<td>.00</td>
<td>.02**</td>
<td>.05**</td>
<td>.15**</td>
<td>.06**</td>
<td>.00</td>
<td>.06**</td>
</tr>
</tbody>
</table>

Note. N = 752. GN = Grandiose Narcissism, VN = Vulnerable Narcissism, Intra = Intrapersonal, Inter = Interpersonal, sr = semipartial correlation.

* p < .01. ** p < .001.
correlations with GN were significant and positive, and with VN were significant and negative. This pattern was present again but reversed with BIS and neuroticism. VN also explained unique variance in agreeableness and conscientiousness, and GN explained unique variance for the BAS reward responsiveness and drive.

The regressions also showed the differential and incremental predictive ability of intrapersonal and interpersonal narcissism. Given the self- (as opposed to other-) focused nature of intrapersonal narcissism, a reasonable expectation would be a pattern of results in which intrapersonal GN/VN would be related to scales that specifically assessed internal, self-directed constructs (e.g., optimism, self-esteem). However, interpersonal GN/VN would be expected to relate to scales that specifically assessed external, other-directed constructs (e.g., agreeableness, aggression). Consistent with theoretical and empirical work on the narcissism dimensions, we also expected GN to be adaptive intrapersonally and maladaptive interpersonally, and VN to be maladaptive both intrapersonally and interpersonally. Analyses for GN and VN were performed separately due to the non-significant correlation between GN and VN, \( r(881) = .05, p = .111 \).

Intrapersonal and interpersonal GN both explained unique variance in drive, fun-seeking, extraversion, openness, BIS, and neuroticism. Intrapersonal, but not interpersonal, GN was associated with unique variance in reward responsiveness and optimism. In contrast, interpersonal, but not intrapersonal, GN was associated with unique variance in academic entitlement and agreeableness. These results are consistent with expectations based on the self-vs other-directedness of the scales, as well as the bifurcated nature of GN as both adaptive and maladaptive, and demonstrate incremental and discriminant validity of GN factors.

With regards to VN, both intrapersonal and interpersonal VN explained unique variance in academic entitlement and neuroticism. Intrapersonal, but not interpersonal, VN explained
unique variance in BIS, optimism, and conscientiousness. Interpersonal, but not intrapersonal, VN explained unique variance in fun-seeking, extraversion, and agreeableness. Similar to the analyses above, this pattern of results indicates that intrapersonal VN is uniquely related to self-directed, and interpersonal VN to other-directed scales. They also suggest that both intra- and inter-personal VN are related to maladjustment. These analyses support the incremental and discriminant validity for intrapersonal and interpersonal VN.

**Discussion**

To understand the nature of trait narcissism and develop a brief but comprehensive assessment tool, the factor structure of a wide range of narcissism items was examined, especially those reflecting GN, VN, and normal narcissism. The resulting factor structure of these items in a university student population suggest two higher-order narcissism factors (GN and VN), each with two lower-order factors (relating to interpersonal and intrapersonal processes). The differences between the GN and VN factors, intrapersonal and interpersonal factors, and their construct validity, was demonstrated in their correlations and regressions.

Despite item generation targeting a normal narcissism dimension, a corresponding factor did not emerge. However, splitting GN into two sub-factors reflecting inter- and intra-personal components illustrates the paradox described by Morf and Rhodewalt (2001) that intrapersonally, narcissism may be mistaken as healthy, but this inflated self-appraisal corresponds with interpersonal dysfunction, including entitlement and disagreeableness. While VN converges with GN on their adversarial interpersonal relations, VN is also intrapersonally distressing due to its association with maladjustment including neuroticism, avoidance, and pessimism. These findings are consistent with previous analyses of GN and VN factors in relation to personality traits and approach-avoidance motivation (Miller & Maples, 2011; Foster & Trimm, 2008).
Although such a structure has been hypothesised (Morf & Rhodewalt, 2001), to our knowledge, this is the first study to demonstrate a higher-order GN and VN factor structure with inter- and intra-personal lower-order factors consistently on each. The pattern of correlations and regression analyses also provided initial convergent, incremental, and discriminant validity of the four factors. To further validate the factor structure found in undergraduates, the Study 1 analysis was repeated in Study 2 using a community sample. While much of the research in psychology relies on undergraduate samples, community-based samples can provide valuable information. Indeed, Campbell and Miller (2011) suggested that this is particularly lacking in the narcissism literature. The scale psychometrics found in Study 1 were carefully reviewed and minor changes were made prior to testing. The response scale was altered from a 5- to a 6-point scale to eliminate overuse of the scale midpoint as a response style. A fidelity check was also included to ensure the validity of the responses, as well as a test-retest component to measure reliability.

Study 2

Method

Participants. Study 2 consisted of 298 adults (59% female, 32% male, 9% unreported), aged 18-70 ($M = 34.38, SD = 11.65$). The self-reported ethnicity of the sample was 78.4% Australian, 10.2% European, 4.4% New Zealand, 3.8% Asian, 2.4% North American, 0.4% African, and 0.4% Aboriginal. Most respondents (66.4%) were living in Western Australia (11.8% Victoria, 11.4% New South Wales, 5.2% Queensland, 2.2% South Australia, 1.3% Australian Capital Territory, 1.3% Tasmania, 0.4% Northern Territory), with 60.4% reporting they lived in an urban area, 17.4% semi-urban, 14.8% semi-rural and 7.4% rural. The reported approximate family yearly incomes ranged from less than $20,000 to over $200,000, with a cluster (19.2%) between $60,000 and $80,000, which aligns with the Australian median
household income (Australian Bureau of Statistics, 2017). Participants were recruited for an online study on personality via social media (e.g., Facebook, Twitter) targeting community pages (e.g., local businesses and newspapers, events pages, parenting forums, sports clubs, church groups etc.) as well as word of mouth. Selection criteria called for adults living in Australia.

**Measures.** A subset of Study 1 scales were administered again, along with additional scales chosen to highlight the divergent relation between intrapersonal and interpersonal narcissism. Scales from Study 1 (with internal reliability, mean, and standard deviation in parentheses) included the NPI-16 ($\alpha = .75, M = 1.23, SD = 0.19$) and the RSE ($\alpha = .89, M = 2.87, SD = 0.52$). The BFI-10 was also administered, however, due to unacceptable reliabilities for the subscales ($\alpha = .06 - .53$), it was omitted from the results.

**5-item World Health Organisation Well-Being Index** (WHO, 1998). The 5-item Well-being Index is a self-report scale that measures psychological well-being. Items are rated using a 6-point Likert scale. Higher scores indicate greater well-being ($\alpha = .85, M = 3.18, SD = 0.91$).

**Others’ Approval** (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). The Contingencies of Self-Worth (CSW) measures domain-specific CSW. Of seven subscales, the Others’ Approval 5-item scale was selected based on its relevance to trait narcissism. Items are rated using a 7-point scale, higher scores indicating greater reliance on others ($\alpha = .80, M = 4.13, SD = 1.19$).

**12-item Aggression Questionnaire** (AQ-12; Bryant & Smith, 2001). The AQ-12 is a short form version of the Aggression Questionnaire that has demonstrated superior reliability and validity (Bryant & Smith, 2001). The four subscales are: physical aggression ($\alpha = .80, M = 1.82, SD = 1.12$), verbal aggression, ($\alpha = .74, M = 2.69, SD = 1.15$), anger ($\alpha = .74, M = 2.44, SD = 1.13$), and hostility ($\alpha = .73, M = 2.40, SD = 1.22$).
**Procedure.** Participants accessed the survey online using a link specified in the recruitment materials. The online methodology was the same as that described in Study 1, except participants were also given the opportunity to volunteer for a follow-up study to measure the test-retest stability of the NS over a short-term time interval (1 month).

**Results**

Prior to running the analyses, assumptions were checked and the data were screened for outliers. Seven univariate outliers were identified and removed. A fidelity check was performed using an item that read, “Sometimes our attention wanders when we complete surveys, please check strongly agree for this question.” Thirty-seven (13%) participants did not answer this question correctly and their data was removed. A sample of 254 participants remained. Missing values were then analysed using Little’s MCAR test. Data was found to be missing completely at random and were replaced with the mean.

**Factor Analysis.** To validate the Study 1 EFA results and to examine the factor structure of the Narcissism Scale (NS) in a more representative population, a unrestricted partial confirmatory factor analysis (PCFA) was conducted using maximum likelihood extraction and direct oblimin rotation (Gignac, 2009). A PCFA was used because it provides more information than an EFA (such as model fit) and is appropriate where the analysis is still exploratory. This was the case in the present analysis as the midpoint was removed from the response scale and the factor structure was being tested on a different population. Moreover, a PCFA provides more information than an EFA as to whether a restricted CFA on the final factor structure (which requires substantial power) is justifiable for future research.

A parallel analysis was run first using the procedure provided by O’Conner (2000) and a four-factor model was confirmed. The PCFA was then run with a four-factor model specified.
All items loaded onto the four factors. The resultant PCFA model replicated the structure of the EFA model found in Study 1, but with two items removed due to low/cross loadings. Table 2.2 presents a summary of the individual items and their loadings.

Table 2.2

*Summary of PCFA Unrestricted Factor Loadings from the Pattern Matrix*

<table>
<thead>
<tr>
<th>Narcissism Scale items</th>
<th>VN</th>
<th>GN</th>
<th>GN</th>
<th>VN</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am misunderstood, mistreated, and deserve a break.</td>
<td>.66</td>
<td>.01</td>
<td>.09</td>
<td>.03</td>
</tr>
<tr>
<td>It’s easier to be alone than to face not getting what I want from others.</td>
<td>.65</td>
<td>.00</td>
<td>.01</td>
<td>.04</td>
</tr>
<tr>
<td>I have problems that nobody else understands.</td>
<td>.55</td>
<td>.09</td>
<td>.02</td>
<td>.07</td>
</tr>
<tr>
<td>Sometimes I avoid people because I know they’ll disappoint me.</td>
<td>.53</td>
<td>.00</td>
<td>.07</td>
<td>.08</td>
</tr>
<tr>
<td>I have enough on my hands without having to worry about other people’s problems.</td>
<td>.48</td>
<td>.06</td>
<td>.03</td>
<td>.11</td>
</tr>
<tr>
<td>It’s easy for me to control other people.</td>
<td>.19</td>
<td>.71</td>
<td>.10</td>
<td>.09</td>
</tr>
<tr>
<td>I am good at getting people to do things my way.</td>
<td>.13</td>
<td>.67</td>
<td>.01</td>
<td>.06</td>
</tr>
<tr>
<td>I can usually talk my way out of anything.</td>
<td>.03</td>
<td>.60</td>
<td>.02</td>
<td>.05</td>
</tr>
<tr>
<td>I like to see what I can get away with.</td>
<td>.01</td>
<td>.52</td>
<td>.08</td>
<td>.11</td>
</tr>
<tr>
<td>I can read people like a book.</td>
<td>.04</td>
<td>.36</td>
<td>.13</td>
<td>.04</td>
</tr>
<tr>
<td>I am a really special person.</td>
<td>.03</td>
<td>.05</td>
<td>.64</td>
<td>.10</td>
</tr>
<tr>
<td>I have always known that I am gifted.</td>
<td>.16</td>
<td>.11</td>
<td>.61</td>
<td>.11</td>
</tr>
<tr>
<td>I love showing all the things I can do.</td>
<td>.07</td>
<td>.02</td>
<td>.56</td>
<td>.19</td>
</tr>
<tr>
<td>I am a powerful person.</td>
<td>.01</td>
<td>.30</td>
<td>.44</td>
<td>.03</td>
</tr>
<tr>
<td>I know I am going to go far.</td>
<td>.15</td>
<td>.18</td>
<td>.43</td>
<td>.06</td>
</tr>
<tr>
<td>I am jealous of people who look better than I do.</td>
<td>.06</td>
<td>.11</td>
<td>.08</td>
<td>.76</td>
</tr>
<tr>
<td>When other people don’t notice me, I start to feel worthless.</td>
<td>.03</td>
<td>.00</td>
<td>.12</td>
<td>.65</td>
</tr>
<tr>
<td>Sometimes I am envious of other people’s good fortune.</td>
<td>.08</td>
<td>.06</td>
<td>.06</td>
<td>.56</td>
</tr>
<tr>
<td>I tend to feel humiliated when criticised.</td>
<td>.09</td>
<td>.02</td>
<td>.14</td>
<td>.51</td>
</tr>
<tr>
<td>I get annoyed by people who are not interested in what I say or do.</td>
<td>.26</td>
<td>.01</td>
<td>.16</td>
<td>.40</td>
</tr>
</tbody>
</table>

*Note. N = 254. Factor loadings > .35 are in boldface. GN = Grandiose Narcissism; VN = Vulnerable Narcissism; Inter = Interpersonal; Intra = Intrapersonal.*

Fit indices were then calculated using Bartlett’s test of sphericity (null model; \(X^2(190) = 1233.81, p < .000\)) and the Test of Goodness-of-fit chi-square value (implied model; \(X^2(116) = 139.54, p < .000\; \text{Gignac, 2009} \)). Model fit was assessed by calculating incremental and absolute close-fit index (i.e., Comparative Fit Index [CFI] and Root Mean-square Error of Approximation [RMSEA], respectively). The four-factor solution had good model fit (CFI = 0.98, RMSEA = 0.03), and superior model fit to a two-factor (CFI = 0.83, RMSEA = 0.07) or one-factor solution.
(CFI = 0.43, RMSEA = 0.12). Scale psychometrics for the four-factor solution are presented in Table 2.3. Partial confirmatory factor analytic results and scale psychometrics supported a four-factor solution. The resultant scale replicated the factor structure found in Study 1, with the four factors being Interpersonal VN, Intrapersonal VN, Interpersonal GN, and Intrapersonal GN.

Table 2.3
Narcissism Scale Inter-correlations, Internal Reliability, and Scale Statistics

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Skew (Kurtosis)</th>
<th>M</th>
<th>SD</th>
<th>95%CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interpersonal VN (0.72)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.33 (-0.25)</td>
<td>2.92</td>
<td>0.94</td>
<td>2.81, 3.04</td>
</tr>
<tr>
<td>2. Intrapersonal VN (.45** (.71)</td>
<td>-0.22 (-0.59)</td>
<td>3.45</td>
<td>0.97</td>
<td>3.34, 3.57</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Interpersonal GN .03 .1 (.72)</td>
<td>0.06 (-0.45)</td>
<td>3.39</td>
<td>0.82</td>
<td>3.29, 3.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Intrapersonal GN .06 -.08 .45** (.74)</td>
<td>-0.09 (-0.39)</td>
<td>3.56</td>
<td>0.89</td>
<td>3.45, 3.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 254. VN = Vulnerable Narcissism; GN = Grandiose Narcissism.
* p < .01. ** p < .001.

Construct Validity. The relations between the NS, the NPI-16, and self-esteem were examined, in order to explore convergent and divergent validity. Again, the NPI-16 was strongly and significantly correlated with inter- and intra-personal GN, \( r(254) = .54, p < .001 \) and \( r(254) = .53, p < .001 \), but not with inter- and intra-personal VN. Also, inter- and intra-personal GN were positively related to self-esteem, \( r(254) = .29, p < .001 \) and \( r(254) = .46, p < .001 \), while inter- and intra-personal VN scales were negatively related to self-esteem, \( r(254) = -.44, p < .001 \) and \( r(254) = -.48, p < .001 \). In addition, the relations of the NS, NPI-16, and self-esteem with the other measures were examined to test convergent, incremental, and discriminant validity.

Seventeen participants’ incomplete responses were excluded, leaving a sample of 237 (65% female, 35% male), aged 18-70 \( (M = 34.38, SD = 11.65) \). The results are presented in Table 2.4.

The NS correlations and regressions exhibited the predicted pattern of convergence and divergence as found in Study 1. While the GN subscales and the NPI had comparable patterns of correlations, both were clearly distinct from self-esteem, and differed from the VN scales
substantially. The differential predictive ability of GN and VN were particularly salient in the cases of self-esteem and well-being, with the semi-partial correlations indicating that GN was uniquely associated with significant, positive relationships, while VN was uniquely associated with significant, negative relationships. This pattern was repeated but in reverse with others’ approval. Both VN and GN explained unique variance in physical aggression, verbal aggression, and anger. VN was also uniquely related to hostility.

Table 2.4

Convergent, Incremental, and Discriminant Validity of the Narcissism Scale in a Community Sample

<table>
<thead>
<tr>
<th></th>
<th>Self-esteem</th>
<th>Well-being</th>
<th>Others’ Approval</th>
<th>AQ Physical</th>
<th>AQ Verbal</th>
<th>AQ Anger</th>
<th>AQ Hostility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>.57**</td>
<td>-.47**</td>
<td>-.23**</td>
<td>-.14</td>
<td>-.23**</td>
<td>-.58**</td>
<td></td>
</tr>
<tr>
<td>NPI-16</td>
<td>.41**</td>
<td>.18**</td>
<td>-.15</td>
<td>.14</td>
<td>.24**</td>
<td>.10</td>
<td>-.12</td>
</tr>
<tr>
<td>GN Intra</td>
<td>.46**</td>
<td>.28**</td>
<td>-.25**</td>
<td>.05</td>
<td>.09</td>
<td>.03</td>
<td>.16*</td>
</tr>
<tr>
<td>GN Inter</td>
<td>.29**</td>
<td>.16*</td>
<td>-.14</td>
<td>.24**</td>
<td>.33**</td>
<td>.24**</td>
<td>.03</td>
</tr>
<tr>
<td>VN Intra</td>
<td>-.48**</td>
<td>-.32**</td>
<td>.50**</td>
<td>.23**</td>
<td>.33**</td>
<td>.31**</td>
<td>.49**</td>
</tr>
<tr>
<td>VN Inter</td>
<td>-.44**</td>
<td>-.43**</td>
<td>.07</td>
<td>.33**</td>
<td>.29**</td>
<td>.25**</td>
<td>.58**</td>
</tr>
</tbody>
</table>

Regressions

<table>
<thead>
<tr>
<th></th>
<th>ΔR² (sr)</th>
<th>ΔR² (sr)</th>
<th>ΔR² (sr)</th>
<th>ΔR² (sr)</th>
<th>ΔR² (sr)</th>
<th>ΔR² (sr)</th>
<th>ΔR² (sr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.20**</td>
<td>.07**</td>
<td>.05**</td>
<td>.03*</td>
<td>.06*</td>
<td>.02*</td>
<td>.01</td>
</tr>
<tr>
<td>Step 2</td>
<td>.30**</td>
<td>.20**</td>
<td>.11**</td>
<td>.14**</td>
<td>.11**</td>
<td>.11**</td>
<td>.39**</td>
</tr>
<tr>
<td>Step 3</td>
<td>.45**</td>
<td>.26**</td>
<td>.23**</td>
<td>.17**</td>
<td>.24**</td>
<td>.15**</td>
<td>-.08</td>
</tr>
<tr>
<td>Total R²</td>
<td>.49**</td>
<td>.26**</td>
<td>.17**</td>
<td>.13**</td>
<td>.19*</td>
<td>.13**</td>
<td>.40**</td>
</tr>
</tbody>
</table>

Note. N = 237. AQ = Aggression Questionnaire; GN= Grandiose Narcissism; VN = Vulnerable Narcissism; Intra = Intrapersonal; Inter = Interpersonal; sr = semipartial correlation.

* p < .01. ** p < .001

The regression analyses also confirmed the differential and incremental predictive ability of intrapersonal and interpersonal narcissism. As explained in Study 1, given the nature of these
factors, a pattern of results was expected in which intrapersonal GN/VN would be related to scales that specifically assessed self-directed constructs, whereas interpersonal GN/VN would be related to scales that specifically assessed other-directed constructs. Consistent with theoretical and empirical work on the narcissism dimensions, GN was expected to be adaptive intrapersonally whilst maladaptive interpersonally, and VN to be maladaptive both intrapersonally and interpersonally. As in Study 1, analyses for GN and VN were performed separately due to the non-significant correlation between GN and VN lower-order factors, \( r(254) = .00, p = .960. \)

Intrapersonal, but not interpersonal, GN explained unique variance in self-esteem, well-being, others’ approval, and hostility. In contrast, interpersonal, but not intrapersonal, GN explained with unique variance in physical aggression, verbal aggression, and anger. These analyses demonstrate discriminant validity for intrapersonal and interpersonal GN. With regards to VN, both intrapersonal and interpersonal VN explained unique variance in self-esteem and well-being. In two variables (reward responsiveness and others’ approval), both intrapersonal and interpersonal VN explained unique variance, but the relationship was positive for intrapersonal VN and negative for interpersonal VN. This may be evidence for an element of paradoxical interplay in VN as well. Finally, intrapersonal VN explained unique variance in verbal aggression, anger, and hostility. However, interpersonal VN also predicted unique variance in physical aggression, verbal aggression, and hostility. These analyses support the incremental and discriminant validity of intrapersonal and interpersonal VN. In both GN and VN, where unique associations were found, intrapersonal scales tended to relate to scales assessing self-directed constructs, whereas interpersonal scales tended to relate to scales assessing other-directed constructs.
Test-retest Reliability. Of the 254 participants in Study 2, 100 agreed to be contacted about a follow-up survey, of whom, 94 participated. Five responses were removed due to incomplete data. Each NS factor was analysed separately. The test-retest stability was high over 1 month: Interpersonal VN, $r(86) = .79$, $p < .001$; Intrapersonal GN, $r(86) = .81$, $p < .001$; Interpersonal GN, $r(86) = .88$, $p < .001$; and Intrapersonal VN, $r(86) = .82$, $p < .001$.

Discussion

The PCFA results replicated the four-factor solution found in Study 1, and the use of a community sample adds valuable information to a literature dominated by student samples (Campbell & Miller, 2011). The factor structure remained stable between samples and were consistent with personality trait scales. Scores for all four factors were stable over a 1-month time interval. The difference between GN and VN, as well as their construct validity was again confirmed by their pattern of correlations and regressions. As in Study 1, and illustrative of the paradox described by Morf and Rhodewalt (2001), intrapersonal GN was related to indicators of adjustment, but interpersonal GN was related to indicators of maladjustment. While VN converges with GN on their adversarial interpersonal relations, intrapersonally, VN is additionally distressing due to its association with low self-esteem and internalising symptoms (Pincus et al., 2009). The current analyses also demonstrate that VN is particularly sensitive to interpersonal setbacks and the approval of others’, with interpersonal VN predicting unique variance in others’ approval, well-being, and self-esteem. The regression analyses support the incremental and discriminant validity of the intra- and inter-personal factors.

Due to the concurrent inflated sense of self (grandiosity) and hyper-vigilance to ego-threat (vulnerability) in narcissism (Morf & Rhodewalt, 2001), failure or shameful situations may activate aggression in both GN and VN. This aggression was thought to be predominantly
internalised for VN and externalised for GN. This supposition is evident in intrapersonal VN predicting unique variance in verbal aggression, anger, and hostility. The term *narcissistic rage* was coined by Kohut (1971) to describe when the grandiose illusions of the vulnerable narcissist are brought into question and the extreme behaviour dysregulation that such a fall from grace entails. In this study, both interpersonal VN and interpersonal GN were correlated with self-reports of physical and verbal aggression, which is consistent with past research (Pincus et al., 2009) and supports the theories of both traditional views that low self-esteem is associated with aggression or ‘humiliated fury’ (e.g., Harter, 2015), as well as more recent views linking the combination of high narcissism and high self-esteem with aggression or threatened egotism (e.g., Bushman & Baumeister, 1998). Further investigation is needed to determine what situational factors elicits different aggressive reactions from each narcissistic personality type but the current analyses provide evidence to buttress the initial validation of the four scales.

**General Discussion**

Narcissism has historically been an intensive source of theoretical debate and has inspired decades of empirical work. As narcissism continues to rise in Western society, this debate continues and is matched by interest in the lay culture (Twenge & Campbell, 2009). At this point, the field needs clarity as to the structure of trait narcissism in order to meaningfully move forward and address the narcissism criterion problem (Cain et al., 2008; Campbell & Miller 2011; Pincus & Lukowitsky, 2010; Rosenthal & Hooley, 2010). Using items taken from a broad, cross-disciplinary range of narcissism assessment tools, we found that trait narcissism is composed of two higher-order factors, best described as GN and VN. In turn, GN and VN are each defined by two lower-order factors — intrapersonal and interpersonal narcissism — depending on whether the expression of narcissism is directed inwards or outwards. Importantly,
this endeavor enabled the development of a multi-dimensional, yet brief, self-report inventory. The resulting measure, the Narcissism Scale (NS), is a 20-item scale that provides researchers with a brief tool that is appropriate for use with both undergraduate and community samples. The two studies reported in this paper provide initial psychometric evidence toward the reliability and construct validity of the NS.

These findings add to a growing body of research and buttress current theoretical conceptualisations of narcissism as being composed of two major dimensions – specifically, GN and VN (e.g., Campbell & Miller, 2011; Maxwell et al., 2011; Wink 1991). GN in this study converges with the willful/oblivious phenotype, while VN emulates the sensitive/fragile phenotype described in clinical and personality research (see Russ et al., 2008; Wink, 1992). The divergent correlations found between GN and VN and measures of psychosocial adjustment, and their low correlation with each other emphasise the importance of separating them for research and conceptual purposes, rather than evaluating narcissism unidimensionally. This is consistent with previous work (Maxwell et al., 2011; Miller & Campbell, 2010) and supports the hypothesis that they may be distinct narcissistic personality types (Roche et al., 2013; Rose et al., 2002; Wink 1991).

Importantly, the current findings add to the literature by providing evidence that each phenotype includes two facets: the way the individual thinks of the self (intrapersonal narcissism) and the way the individual relates to others (interpersonal narcissism). The dynamic interaction between intrapersonal and interpersonal processes is the core feature of the dynamic self-regulatory model of narcissism (Morf & Rhodewalt, 2001). This model describes narcissism as a motivated self-construction in which deleterious interpersonal processes (interpersonal vulnerability) result from the insatiable pursuit of affirming a manifestly grandiose self-appraisal.
(intrapersonal grandiosity). The self-regulatory model looks at the paradoxical nature of GN in detail. Our findings add to this model by identifying the same paradoxical dynamic of a tough and defensive exterior (interpersonal grandiosity) hiding a shy and sensitive interior in VN (intrapersonal vulnerability). To our knowledge, these findings are the first to empirically support the theoretical distinction between intrapersonal and interpersonal narcissism proposed by the dynamic self-regulatory model.

Although both GN and VN are characterised by a strong sense of grandiosity/superiority intrapersonally and entitlement/exploitativeness interpersonally, there are important differences in their individual constitutions. Past research has found that VN is most vulnerable to and threatened by relational setbacks, while GN is most vulnerable to and threatened by achievement setbacks and score low on relational sensitivity (Besser & Priel, 2010; Miller & Maples, 2011). It is evident that the vulnerable narcissist’s sense of self is strongly tied to their interpersonal arena, as is confirmed by both intrapersonal and interpersonal VN being related to neuroticism, self-esteem, and well-being. The dynamic reinforcement of these self-regulatory mechanisms over time may go a long way to explain the differing temperament and personality constitutions of each narcissism dimension, with VN being introverted, neurotic, and inhibited due to their hypersensitivity, and more susceptible to interpersonal threat, and GN being uninhibited, extraverted, and relatively resilient, with high subjective well-being (Foster & Trimm, 2008, Miller & Maples, 2011).

The distinction between intrapersonal and interpersonal GN provides clarity as to why GN is sometimes confused with ‘normal’ narcissism (Pincus et al., 2009; Roche et al., 2013; Rosenthal & Hooley, 2010). When considered in isolation, intrapersonal GN (having an inflated self-appraisal) may seem akin to high self-esteem. However, Rhodewalt and Morf (1995) found
that the more inflated a person’s self-appraisal, the greater their interpersonal deficits; again, reinforcing the need to consider both intra- and inter-personal components and perspectives. This is exemplified in the metaphor used by Sedikides (2007, p.412), “The mind of a narcissist is like a sports utility vehicle. It is great to be in the driving seat, but fellow motorists must watch out, lest a collision with this mobile fortress demolish their more humble hatchbacks.” The divergent relations between GN and self-esteem further illustrate that the two terms are not synonymous.

Similarly, we did not find support for a normal or high-functioning/autonomous narcissism (see Russ et al., 2008 and Wink, 1992), and we also did not find evidence for a categorically distinct pathological narcissism. Both the scale items and external correlates of the VN scales adhere to Pincus et al. (2009) conceptualisation of pathological narcissism, as well as clinical and empirical descriptions of VN (Russ et al., 2008; Wink, 1991). Although VN is the more impaired narcissism phenotype, it was still normally distributed in both the undergraduate and the adult sample in this study. It is proposed that there are two distinct narcissism phenotypes measurable in non-clinical populations that both have pathological relevance and are represented in the clinical literature (Maxwell et al., 2011; Miller & Campbell, 2008).

These studies have limitations. First, all our results were based on self-report, thus any distress and dysfunction of those with high trait narcissism may be under-reported due to positive illusory bias. In this study, we were able to highlight the paradox of concurrent self-reports of psychological well-being and potential interpersonal distress using self-report measures of aggression; however, a comprehensive assessment of narcissism would benefit from peer-, parent-, and partner-reports. Finally, while correlational and unrestricted factor analyses provide valuable preliminary research, a restricted factor analysis is recommended for future research.
The narcissistic self is shaped by the dynamic interplay of intrapersonal processes and interpersonal strategies (Morf & Rhodewalt, 2001). Narcissism is more than an inflated sense of self; it is also an inherently social phenomenon, and understanding narcissism requires an understanding of the processes associated with both an individual’s behaviour and thoughts. To this end, the present study adds to our understanding of narcissism as having not only grandiose and vulnerable components, but also social and personal components. Having a tool that readily and reliably distinguishes these domains will aid in understanding how narcissism affects social interactions and relationships, as well as psychological well-being. In sum, the development of the NS addresses the criterion problem that currently plagues the literature on narcissism and may help to facilitate empirical research in the social/personality field of psychology.
References


Chapter 3

Foreword

Accumulated theoretical and empirical evidence demonstrates that grandiose and vulnerable narcissism are two relatively distinct dimensions of narcissism with largely unrelated nomological networks, yet somehow both represent the same core narcissism construct. In Chapter 2, initial psychometric evidence was presented for a new measure of trait narcissism in adults, the Narcissism Scale (NS). This scale clearly parses grandiose and vulnerable items into their constituent factors in both university student and community samples. The NS contributes to evidence that GN and VN are distinct factors in adulthood. However, our understanding of the shared core of narcissism is still limited.

Chapter 3 investigates the structural validity of three scales of narcissism, again contributing evidence toward the bifurcated structure of narcissism. Chapter 3 also examines HEXACO personality traits to determine which are in common with and which distinguish between GN and VN, and also how narcissism can be differentiated from more adaptive self-appraisals. By further clarifying the structure of narcissism, this chapter addresses the criterion problem in the narcissism literature. Using the HEXACO model of personality, this chapter also provides evidence for the diagnostic specifiers of GN and VN and demarcates traits that distinguish narcissistic self-appraisals from self-esteem and self-compassion. Additionally, the studies in this chapter advance our understanding of dimensional narcissism by comparing pathology- and trait-based measurements of narcissism. Doing so provides needed clarity around narcissism nomenclature and allows for greater consolidation of the diverse conceptualisations and measurements of narcissism within the literature.

This chapter has been prepared for publication review.
Chapter 3. Core Features of Grandiose and Vulnerable Narcissism: An examination of Honesty-Humility and Self-Compassion
Abstract

Substantial and compelling evidence from both clinical and empirical discourses provide evidence for two predominant expressions of narcissism - grandiose and vulnerable narcissism. Consolidating these two narcissism dimensions and their diverse nomological networks under a central narcissism construct has been repeatedly cited as a primary imperative of the field over the last decade. To further our understanding of the broader narcissism construct, it is necessary to determine the core and peripheral features of narcissism and how current scales represent grandiose and vulnerable narcissism. In three studies, the validity of three existing narcissism scales was examined using an exploratory factor analysis and the central and peripheral features of narcissism were investigated in relation to the HEXACO model of personality and adaptive self-appraisals. Two higher-order factors of narcissism were identified. Grandiose and vulnerable narcissism dimensions shared a common core of low honesty-humility and were primarily demarcated by extraversion. Low honesty-humility, and to a lesser extent disagreeableness, represented the core of narcissism across studies and distinguished narcissism from self-esteem and self-compassion. These findings enrich our understanding of multi-dimensional narcissism, narcissistic personality configurations, and narcissism nomenclature.

**Keywords:** Narcissism Scale, grandiose narcissism, vulnerable narcissism, HEXACO
Core Features of Grandiose and Vulnerable Narcissism: An Examination of Honesty-Humility and Self-Compassion.

Narcissism has been described as an “unimaginably diverse and amorphous construct” (Bradlee & Emmons, 1992, p. 821). With hundreds of peer-reviewed articles on narcissism published each year (Miller, Lynam, Hyatt, & Campbell, 2017), it is unsurprising that the conceptualisation of narcissism has evolved substantially in the last decade. It is now widely agreed that narcissism is multidimensional and composed primarily of two seemingly antithetical dimensions: grandiose narcissism (GN) and vulnerable narcissism (VN; Cain, Pincus, & Ansell, 2008; Krizan & Herlache, 2017; Wink, 1991). Despite the agreement around two dimensions, there is still a lack of clarity regarding the optimal representation and measurement of narcissism (Krizan & Herlache, 2017; Wright, 2016). To integrate the diverse and growing literature, it is necessary for GN and VN to be clearly measured and consolidated under one coherent core. Miller et al. (2017) proposed that personality factors and facets offer a parsimonious way to map the central and peripheral features of narcissism’s nomological network. Thus far, elemental approaches have focused on the five-factor model of personality (FFM). The goal of the present research was to conduct an exploratory factor analysis of three narcissism scales to identify structurally valid indicators of GN and VN, and to use the six-factor HEXACO to identify personality features that distinguish GN from VN, and narcissism from adaptive self-appraisals.

Narcissism was originally described as a personality disorder in which one is excessively egocentric yet overly reliant on external recognition, and has interpersonal relations characterised by egosyntonic aggression and other antisocial behaviours (Kernberg, 1984; Kohut, 1975). How this narcissism core is expressed varies substantially between individuals, and these expressions of narcissism have been the source of considerable debate within the literature. The bifurcated


structure of narcissism was first empirically established in a seminal study by Paul Wink (1991). In that study, six narcissism scales were subject to a principle-components analysis, which revealed two uncorrelated components: Grandiose-Exhibitionism and Vulnerability-Sensitivity. Although both components were associated with egotism and disregard for others, they had divergent associations with indices of psychological health (e.g., self-esteem, neuroticism) and social boldness (e.g., dominance, extraversion).

A comprehensive review by Cain et al. (2008) illustrated the pervasiveness of these two expressions in clinical theory, social/personality psychology, and psychiatric diagnosis, and summarised the diametric labels used to describe them. GN has been described as thick-skinned, empowered, or oblivious narcissism, and VN has been described as thin-skinned, disempowered, or closet narcissism. Despite this convergence across disciplines, disagreement as to the precise definition and measurement of GN and VN persists. Moreover, many studies fail to accurately label and measure both dimensions, making it difficult to understand and integrate the growing literature. Social-personality researchers tend to favour GN and conflate it with trait narcissism while clinical researchers favour VN and conflate it with clinical narcissism (Ackerman et al., 2017; Miller et al., 2017; Pincus et al., 2009; Wright, 2016). Some researchers suggest GN and VN represent variability between individuals and have different etiologies (Miller et al., 2017), while others suggest they represent fluctuations within a single individual (Pincus et al., 2009). Before etiological and phenomenological theories such as these can be explored with precision, it is necessary to clarify: 1) what features of narcissism are represented and misrepresented in current narcissism scales, 2) what features differentiate between narcissism and adaptive self-appraisals, and 3) what are the central and peripheral features of the narcissistic personality?
One issue that hampers our understanding of GN and VN is the lack of alignment between conceptualisations and measures of narcissism between and even within disciplines. This is particularly salient when considering the operational definitions of narcissism and the elusive factor structures provided by the two most widely used narcissism inventories: the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988) and Pathological Narcissism Inventory (PNI; Pincus et al., 2009). Although the 40-item NPI dominated the narcissism literature for two decades after its inception, more recently, the NPI has been heavily criticised. First, some NPI items have questionable validity as indicators of narcissism (Ackerman et al., 2010). Second, these items have led to confounds between self-esteem and GN (Rosenthal & Hooley, 2010). Third, NPI factors often have inadequate internal reliabilities and the NPI factor structure is unstable, with solutions ranging from 2- to 7-factor models (Corry, Merritt, Mrug, & Pamp, 2008); consequently, a unidimensional short-form of the NPI is now often used (Ames, Rose, & Anderson, 2006). Finally, the NPI predominantly contains items that tap GN, as such has limited validity as a comprehensive narcissism inventory (Pincus et al., 2009).

The focus on GN is not unique to the NPI. Most self-report narcissism inventories are heavily biased towards GN (Krizan & Herlache, 2017). The publication of the PNI was a clear catalyst for a shift in emphasis in the empirical literature towards acknowledging VN and the bifurcated nature of narcissism. The 52-item PNI is often divided into two factors, although it was originally published with 7 lower-order factors that were associated with GN or VN higher-order factors. However, the PNI-GN scale lacks validity as a measure of GN as it is associated with other narcissism scales and criterion variables that correspond to VN rather than GN (Bresin & Gordon, 2011; Miller et al., 2014; Pincus et al., 2009). In order to create a scale that approximates narcissism theory and assesses the full range of narcissistic functioning, it has
become commonplace for researchers to use both the NPI and PNI to provide a comprehensive measurement of GN and VN, respectively.

Recent reviews have reiterated the need for measurement tools that can parsimoniously distinguish between GN and VN (Krizan & Herlache, 2017, Miller et al., 2017). The Narcissism Scale (NS; Derry et al., 2017) was recently developed to address this need in the trait narcissism literature. The NS was designed to provide a measure of trait narcissism brief enough to encourage use in social/personality research, but that equally represented GN and VN. The NS is composed of items taken trans-theoretically from clinical and empirical literatures that target grandiose and vulnerable narcissism descriptions. The 20-item scale is divided into higher-order factors (GN and VN), each of which can be separated into intrapersonal and interpersonal lower-order factors. In the original study, the NS was compared to the NPI to determine the construct validity of the NS-GN scale and highlighted the differences between intra- and inter-personal components of trait narcissism. However, to date there is little research that looks at how the NS relates to other VN scales or measures of pathological narcissism (e.g., PNI).

The difficulty of capturing GN and VN in a scale, that consolidates them into the core narcissism construct whilst demarcating their differences, is a key challenge of the literature to date. The NPI, PNI, and NS were all designed to comprehensively measure narcissism, but each paint a different picture of the narcissistic personality and use diverse factor labels. As a consequence, it is not clear how much of each narcissism dimension is captured by each scale. Due to the evolving nomenclature used to describe narcissism, bottom-up approaches may help inform a consensual definition of narcissism. Determining which aspects of narcissism are represented by each measure can be achieved by factor analysing scales (Krizan & Herlache, 2017; Miller et al., 2011) or examining structural models of narcissism (Miller et al., 2017).
Structural models view narcissism as a collection of basic traits and to date have been primarily informed by research using the FFM (Costa & Widiger, 1994; Costa & McCrae, 2008). The FFM describes five higher-order factors of personality (agreeableness, conscientiousness, extraversion, neuroticism, and openness) each of which are further characterised by six lower-order facets. Initial empirical research and meta-analytic studies of narcissism using the FFM focused on the NPI. This research summarised narcissism as the “disagreeable extravert” due to positive associations with extraversion and negative associations with agreeableness (Paulhus, 2001, p. 228). This research also established agreeableness as the key differentiator between narcissism and self-esteem, the latter of which is also strongly associated with extraversion. Following the integration of VN, a trifurcated model of narcissism was proposed (Miller et al., 2018). Here, FFM disagreeableness (interpersonal antagonism) defined both GN and VN, highlighting the interpersonal processes at the core of narcissism, and extraversion defined GN, and neuroticism defined VN expressions of narcissism. However, this model is not without its limitations. VN and neuroticism have almost identical empirical correlates, demonstrating a need for greater convergent and discriminant validity (Miller et al., 2018). Furthermore, within the FFM agreeableness facets there is disparity between GN and VN (e.g., GN, but not VN, is associated with immodesty, and VN, but not GN, is associated with distrust; Miller et al., 2017).

FFM research has been integral to understanding narcissism’s core and peripheral features. However, in recent years, evidence has accumulated for an alternative model of personality, the HEXACO, which has demonstrated significant incremental ability to predict antisocial and amoral behaviours over the FFM (Ashton & Lee, 2007). Three of the factors (conscientiousness, extraversion, and openness) are practically equivalent to their FFM counterparts. However, there are nuanced differences in the HEXACO emotionality (FFM
neuroticism) and agreeableness-anger (FFM agreeableness-antagonism) factors, both of which are critical to our understanding of narcissism (Miller et al., 2017). Most notably, the main point of difference proposed by the HEXACO is the addition of a sixth factor of personality, named Honesty-Humility (HH). The HEXACO authors demonstrate that FFM agreeableness does not differentiate between deceitfulness (the inclination to exploit another), and distrust (the inclination to believe that one could be exploited), whereas the six-factor model incorporates this distinction into HH and agreeableness factors, respectively (Ashton & Lee, 2007).

Although theoretically promising, due to inconsistencies in the operational definition of narcissism between scales, it is unclear if the HEXACO adds to our understanding of GN and VN. Using the HEXACO, Lee and Ashton (2005) found the NPI to be unrelated to agreeableness, positively related to extraversion, and negatively related to HH. Miller et al. (2009) found that the NPI and a structured interview of clinical narcissism were negatively related to agreeableness and HH, but unrelated to extraversion. Bresin and Gordon (2011) found PNI-VN was negatively related to HH, agreeableness, and extraversion, and positively related to emotionality, and PNI-GN was negatively related to HH only. These findings cast doubt as to the PNI’s ability to measure GN or the validity of GN as a ‘disagreeable extravert’. In sum, the measurement of GN and VN must be clarified before the HEXACO can be used to distinguish central and peripheral features of narcissism. Another way to add to our understanding of core narcissism using the HEXACO is to examine personality traits that distinguish narcissism from adaptive self-appraisals, such as self-esteem and self-compassion.

A seminal study by Morf and Rhodewalt (2001) proposed that narcissism results from a chronic need to have one’s sense of superiority and entitlement recognised and validated by others and describes a dynamic interplay between interpersonal and intrapersonal processes.
Maladaptive interpersonal strategies, such as antagonism and aggression, are thought to be the result of self-regulation failures when this need for self-enhancement is denied. Building on this theory, the Narcissism Spectrum Model (NSM; Krizan & Herlache, 2017) defined narcissism as entitled self-importance, highlighting the intrapersonal processes thought to be at the core of narcissism. The NSM conceptualised GN as a functional orientation of satisfaction-seeking boldness and VN as a functional orientation of anxiety-avoiding reactivity. These authors also conducted an exploratory factor analysis of five narcissism scales, demonstrating that sub-scales measuring superiority or entitlement tended to load on both GN and VN, yet concluded that none of the scales examined represented both dimensions with adequate coverage and fidelity.

Thus, at the core of narcissism seems to be an inflated yet problematic self-concept. However, levels of self-esteem counterintuitively distinguish narcissism types, with VN being negatively and GN positively related to self-esteem (Miller et al., 2017). The blurred conceptual boundary between self-esteem and GN has spawned an extensive literature examining problematic expressions of high self-esteem (e.g., contingent, defensive, fragile self-esteem) in the context of threatened egotism (Baumeister, Smart, & Boden, 1996). A recent review on the heterogeneity of self-esteem attempted to distinguish between optimal and problematic dimensions of high self-esteem by sorting various self-appraisals according to their 1) accuracy, 2) directionality, and 3) stability (Eromo & Levy, 2017). In this new theoretical model of self-esteem, GN and VN were both identified as distorted, inflated self-appraisals, but GN is also non-compensatory and stable whereas VN is compensatory and unstable. Consistent with previous conceptualisations of VN as the more maladaptive dimension of narcissism, VN was placed lower than GN on the self-appraisal spectrum, and optimal high self-esteem, which is an accurate, positive, and stable self-appraisal, was at the top.
Eromo and Levy’s (2017) description of optimal self-esteem can be likened to self-compassion, which is defined as an accurate, stable self-appraisal that is characterised by self-kindness, mindfulness, and common humanity (Neff & Vonk, 2009). Although both self-esteem and self-compassion predict optimism and positive affect, only self-compassion provides a buffer against negative self-feelings and emotions (Leary et al., 2007). Moreover, self-compassion has been described as a process that breaks the narcissistic cycle of self-absorption and over-identification (Neff, 2003) and has even been recommended as a treatment for clinical narcissism (Kramer, Pascual, Rohde, & Sachse, 2017). Self-compassion and NPI scores are uncorrelated (Neff, 2003) but no study has examined self-compassion and VN in adults. To illuminate the maladaptive intrapersonal core of narcissism, it may not be helpful to consider narcissism as a level of self-esteem (e.g., Baumeister et al., 1996). Rather, considering a spectrum of self-appraisals, including self-compassion, self-esteem, grandiose and vulnerable narcissism, may contribute to our knowledge of GN and VN and the characteristics of adaptive self-appraisals.

Three studies were conducted to 1) investigate the construct validity of three narcissism scales in light of our current understanding of the bifurcated structure of narcissism dimensions and 2) to further our understanding of the narcissism core and differentiating features of GN, VN, and adaptive self-appraisals, using the HEXACO model of personality. In Study 1, it was hypothesised that VN would be measured by the NS-VN and the PNI, whereas GN would be measured by NS-GN and the NPI. In Study 2, it was hypothesised that HH and agreeableness would represent core features of narcissism (negative associations with both GN and VN), while extraversion and emotionality would represent the differentiating features of narcissism (opposing associations with GN and VN). Furthermore, it was hypothesised that VN would represent the maladaptive end of a self-appraisal spectrum and self-compassion would represent
the adaptive end, and that core narcissism traits would distinguish between adaptive and maladaptive self-appraisals. In Study 3, the correlations between GN, VN, and the 24 HEXACO facets were also explored to better inform our understanding of their nomological networks.

**Study 1**

The aim of Study 1 was to conduct a structural analysis of the higher-order and lower-order factors of the NPI, PNI, and NS scales to identify valid indicators of GN and VN. To identify scales that best reflect the core of narcissism, an exploratory maximum likelihood factor analysis was performed that allows for cross-loading between factors, as recommended by Krizan and Herlache (2017). It was expected that scales that represent the core of narcissism would load on both GN and VN factors, while scales that differentiate GN and VN would load primarily on one factor.

**Method**

**Participants.** Participants were 621 undergraduates (65% female, 34% male, 1% unreported), aged 18-68 ($M = 20.78, SD = 5.94$). The self-reported ethnicity of the sample was 57.2% Australian, 22.9% Asian, 10.2% European, 4.2% Indian, 2.0% African, 1.5% Aboriginal, 1.0% Arabian, and 1.0% North American.

**Measures. Narcissism Scale (NS).** The NS is a 20-item self-report measure of trait narcissism that has demonstrated validity and reliability (internal and test-retest) in adult samples (Derry et al., 2017). The NS includes two higher-order factors of narcissism (NS-GN and NS-VN) measured by 10 items each. Each higher-order factor can also be separated into 5-item intrapersonal and interpersonal lower-order factors. Participants rate items (e.g., ‘I am a really special person’) on a scale from 1 (Strongly disagree) to 6 (Strongly agree). Responses were averaged. Higher-order factors (NS-GN: $\alpha = .87, M = 3.42, SD = .84$; NS-VN: $\alpha = .93, M = 3.22$,}
and lower-order factors (NS-GN intrapersonal: $\alpha = .83, M = 3.64, SD = .99$; NS-GN interpersonal: $\alpha = .80, M = 3.19, SD = .95$; NS-VN intrapersonal: $\alpha = .81, M = 3.69, SD = 1.02$; NS-VN interpersonal: $\alpha = .77, M = 2.75, SD = .95$) were calculated.

**16-item Narcissistic Personality Inventory (NPI-16).** The NPI-16 (Ames, Rose & Andersen, 2006) was derived from the original NPI-40 (Raskin & Terry, 1988) and represents a unidimensional measure of (grandiose) narcissism. Items are rated on a forced-choice basis, such that one option represents greater narcissism, the other less. Lower-order factors of Authority/Leadership and Entitlement/Exhibitionism were calculated using the solution provided by Corry et al. (2008). Responses were averaged, high scores indicated greater narcissism. A higher-order factor (NPI: $\alpha = .76, M = 1.23, SD = .19$) and lower-order factors (NPI authority: $\alpha = .62, M = 1.20, SD = .21$; NPI entitlement: $\alpha = .68, M = 1.27, SD = .24$) were calculated.

**Pathological Narcissism Inventory (PNI).** The PNI is a 52-item self-report measure of pathological narcissism that assesses narcissistic grandiosity and vulnerability (Pincus et al., 2009). The higher-order factor scales are PNI-VN (lower-order factors are devaluing others, hiding the self, contingent self-esteem) and PNI-GN (lower-order factors exploitativeness, grandiose fantasy, entitlement rage, self-sacrificing self-enhancement). Participants rate items (e.g., ‘I feel important when others rely on me) on a scale from 1 (Not at all like me) to 6 (Very much like me). Responses were averaged. Higher-order (PNI-GN: $\alpha = .83, M = 3.75, SD = 0.72$; PNI-VN: $\alpha = .90, M = 3.21, SD = 0.76$) and lower-order factors (exploitativeness: $\alpha = .77, M = 3.18, SD = 0.98$; self-sacrificing self-enhancement: $\alpha = .84, M = 3.82, SD = 0.96$; grandiose fantasy: $\alpha = .90, M = 4.24, SD = 1.04$; contingent self-esteem: $\alpha = .92, M = 3.33, SD = 0.99$; hiding the self: $\alpha = .84, M = 3.80, SD = 1.01$; devaluing others: $\alpha = .83, M = 2.81, SD = 1.04$; entitlement rage: $\alpha = .84, M = 2.91, SD = 0.93$) were calculated.
Procedure. Students were invited to participate in an online research survey as part of a first year unit. Participants who elected not to participate were not required to explain why they chose not to do so. The study was placed online in order to minimise the burden on participants and increase participation rates.

Results

The higher-order factors of each scale (as opposed to individual items) were first examined to explore their validity as indicators of GN and VN. An unrestricted partial confirmatory factor analysis (PCFA) using a maximum likelihood extraction and direct oblimin rotation was conducted due to the exploratory nature of the analysis (Gignac, 2009).

In line with the theoretical predictions motivating the analysis, a two-factor model was specified using the GN and VN higher-order scales. The two-factor model was supported by a parallel analysis, eigenvalues, and scree plot. The model explained 81% of the total variance. Factor 1 had an eigenvalue of 2.37 and contained PNI-VN and NS-VN, and Factor 2 had an eigenvalue of 1.67 and contained the NS-GN and NPI. PNI-GN cross-loaded on both factors.

Table 3.2 presents a summary of the analysis and Table 3.1 presents the associated fit statistics.

Table 3.1

<table>
<thead>
<tr>
<th>Factors</th>
<th>Null $X^2 (df)$</th>
<th>Implied $X^2 (df)$</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>AIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3737.97(78)</td>
<td>2082.56(65)</td>
<td>.34</td>
<td>.45</td>
<td>.22</td>
<td>930.44</td>
</tr>
<tr>
<td>2</td>
<td>3737.97(78)</td>
<td>600.80(53)</td>
<td>.78</td>
<td>.85</td>
<td>.13</td>
<td>676.80</td>
</tr>
<tr>
<td>3</td>
<td>3737.97(78)</td>
<td>375.43(42)</td>
<td>.83</td>
<td>.91</td>
<td>.11</td>
<td>473.43</td>
</tr>
<tr>
<td>4</td>
<td>3737.97(78)</td>
<td>138.23(24)</td>
<td>.90</td>
<td>.97</td>
<td>.09</td>
<td>246.23</td>
</tr>
</tbody>
</table>

Note. $N = 621$.

To further investigate the content of each factor, a two-factor model was again specified using the lower-order scales of each measure of narcissism. Table 3.2 also presents a summary of this second analysis. The two-factor model explained 56% of the total variance and there were no
cross-loading scales. Factor 1 had an eigenvalue of 4.14 and contained both NS-GN scales, both NPI scales, and PNI exploitativeness. Factor 2 had an eigenvalue of 3.07 and contained both NS-VN scales, and all the PNI scales except for exploitativeness. Factors 1 and 2 were positively correlated, $r(619) = .12, p < .001$.

Table 3.2

**Pattern Matrix of Narcissism Measures for Two- and Four-Factor Solutions**

<table>
<thead>
<tr>
<th>Factor (variance explained)</th>
<th>1 (47%)</th>
<th>2 (33%)</th>
<th>1 (32%)</th>
<th>2 (23%)</th>
<th>3 (8%)</th>
<th>4 (6%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher-order Factors:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNI-VN</td>
<td>.98</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NS-VN</td>
<td>.81</td>
<td>-.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NS-GN</td>
<td>-.10</td>
<td>.97</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPI</td>
<td>-.04</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNI-GN</td>
<td>.44</td>
<td>.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower-order Factors:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NS-GN interpersonal</td>
<td>.92</td>
<td>.06</td>
<td>.98</td>
<td>-.03</td>
<td>.01</td>
<td>-.08</td>
</tr>
<tr>
<td>PNI exploitativeness</td>
<td>.85</td>
<td>.11</td>
<td>.83</td>
<td>.05</td>
<td>.03</td>
<td>.01</td>
</tr>
<tr>
<td>NPI entitlement/exhibitionism</td>
<td>.67</td>
<td>.01</td>
<td>.41</td>
<td>-.19</td>
<td>.32</td>
<td>.22</td>
</tr>
<tr>
<td>NS-GN intrapersonal</td>
<td>.59</td>
<td>-.11</td>
<td>.18</td>
<td>.03</td>
<td>.63</td>
<td>.08</td>
</tr>
<tr>
<td>NPI authority/leadership</td>
<td>.55</td>
<td>-.02</td>
<td>.05</td>
<td>-.06</td>
<td>.77</td>
<td>.06</td>
</tr>
<tr>
<td>PNI contingent self-esteem</td>
<td>-.17</td>
<td>.89</td>
<td>.02</td>
<td>.86</td>
<td>-.17</td>
<td>.07</td>
</tr>
<tr>
<td>NS-VN intrapersonal</td>
<td>-.10</td>
<td>.83</td>
<td>.07</td>
<td>.83</td>
<td>-.12</td>
<td>.02</td>
</tr>
<tr>
<td>PNI devaluing</td>
<td>-.05</td>
<td>.64</td>
<td>.06</td>
<td>.10</td>
<td>.00</td>
<td>.70</td>
</tr>
<tr>
<td>PNI entitlement rage</td>
<td>.18</td>
<td>.62</td>
<td>.06</td>
<td>.32</td>
<td>.20</td>
<td>.39</td>
</tr>
<tr>
<td>NS-VN interpersonal</td>
<td>-.01</td>
<td>.55</td>
<td>.03</td>
<td>.06</td>
<td>.02</td>
<td>.78</td>
</tr>
<tr>
<td>PNI hiding the self</td>
<td>-.02</td>
<td>.55</td>
<td>.01</td>
<td>.14</td>
<td>-.19</td>
<td>.49</td>
</tr>
<tr>
<td>PNI self-sacrificing self-enhancement</td>
<td>.02</td>
<td>.50</td>
<td>.04</td>
<td>.49</td>
<td>.15</td>
<td>.03</td>
</tr>
<tr>
<td>PNI grandiose fantasy</td>
<td>.19</td>
<td>.49</td>
<td>.05</td>
<td>.39</td>
<td>.23</td>
<td>.13</td>
</tr>
</tbody>
</table>

*Note. N = 621. PNI = Pathological Narcissism Inventory; NS = Narcissism Scale; NPI = Narcissistic Personality Inventory; GN = Grandiose Narcissism; VN = Vulnerable Narcissism.*

Although the scree plot supported a two-factor solution, the eigenvalues and fit statistics suggested that more factors may be present. Thus, three- and four-factor solutions were tested. The three-factor model explained 64% of the total variance and had no cross-loading scales. Factor 2 was identical to the two-factor solution. Factor 1 had an eigenvalue of 4.14 and included
NPI entitlement, PNI exploitativeness, and NS-GN interpersonal, Factor 3 had an eigenvalue of 1.08 and contained NPI authority and NS-GN intrapersonal.

The four-factor solution explained 70% of the total variance. Factors 1 and 3 were identical to the three-factor solution. Factor 2 had an eigenvalue of 3.07 and contained NS-VN intrapersonal and the PNI contingent self-esteem, self-sacrificing self-enhancement, and grandiose fantasy scales. Factor 4 had an eigenvalue of 0.83 and contained NS-VN interpersonal and the PNI devaluing, hiding the self, and entitlement rage. Factors 2 and 4 were positively correlated, \( r(619) = .64, p < .001 \), but were not significantly correlated with factor 3. Factor 1 was positively correlated with factor 3, \( r(619) = .58, p < .001 \) and factor 4, \( r(619) = .19, p < .001 \) but was not significantly correlated with factor 2.

Fit indices were calculated by using Bartlett’s test of sphericity (null model) and the Test of Goodness-of-fit chi-squared value (implied model). Model fit was assessed by calculating incremental and absolute close-fit indices which are presented in Table 3.1. Each additional factor improved model fit, with the 4-factor solution providing the best fit. A clear higher-order structure was apparent, as the GN and VN factors in the two-factor solution both split in half to create the four-factor solution. The additional variance explained by the three- and four-factor solutions was marginal, so the two-factor solution was retained.

**Discussion**

On the whole, the pattern of loadings evident in these analyses were consistent with the predicted GN/VN bifurcated structure of narcissism. The analysis of higher-order scales resulted in the clear demarcation of GN and VN factors, with scales largely loading as predicted. The PNI-GN higher-order factor did not load cleanly onto either GN or VN, but rather cross-loaded on both. The analysis of PNI-GN lower-order scales demonstrated that this was due to PNI-GN
being composed of both GN and VN scales. The PNI exploitativeness, entitlement rage, and
grandiose fantasy scales showed some evidence of a positive loading on both factors, providing
some evidence towards entitled self-importance as the core of narcissism. However, in each case
the overlap between factors was marginal. Interestingly, there was also evidence for diverse
expressions of core narcissism constructs between GN and VN dimensions. For example, NS-
GN intrapersonal loaded onto GN, but PNI grandiose fantasy loaded onto VN, whereas NPI
entitlement loaded onto GN, but PNI entitlement rage loaded onto VN. Although PNI-GN cross-
loaded on both GN and VN factors, closer analysis revealed a clear distinction between GN and
VN expressions of core narcissism traits. Thus, the current results support a bifurcated structure
of narcissism, with the two dimensions being GN and VN.

The three-factor solution replicated the structure reported by Krizan and Herlache (2017).
In their study, the first factor represented both intrapersonal and interpersonal VN, the second
factor represented leadership, authority, and exhibitionism, and the third factor represented
exploitativeness, entitlement, and lack of empathy. The third factor reported in their study was
described as core narcissism, however, none of the items in their third factor cross-loaded on GN
and VN in their two-factor solution. The current analyses reveal that the second and third factors
found by Krizan and Herlache (2017) may represent intrapersonal and interpersonal GN,
respectively. In the current study, the four-factor solution was superior to the three-factor
solution and resulted in a split of the VN higher-order factor into intrapersonal and interpersonal
lower-order factors, creating a factor structure similar to that of the NS (Derry et al., 2017). That
is, four factors with GN and VN each split into intrapersonal and interpersonal components.

The four-factor model provides greater specificity in understanding narcissism
expressions and helps to reconcile the proposed trifurcated model of narcissism. The narcissistic
personality is necessarily determined by both its intrapersonal and interpersonal components (Morf & Rhodewalt, 2001). This is demonstrated by the moderate-to-strong correlations between intra- and inter-personal lower-order factors within both the GN and VN higher-order factors. However, isolating one essential component of GN, of over-representing one component within a scale has led to problematic confounds in past research (Ackerman et al., 2010; Campbell et al., 2002; Rosenthal & Hooley, 2010). To the accurately representing the higher-order construct being expressed, lower-order factors should be considered in combination. To parsimoniously examine the core and peripheral features of GN and VN dimensions, the higher-order bifurcated factor structure was retained for subsequent studies.

This study provides evidence that GN is best assessed using NS-GN or NPI, and VN is best assessed using PNI-VN or NS-VN. This study also illustrates the utility of recognising intra- and inter-personal components of narcissism and balancing them within GN and VN scales. This study did not provide evidence for a distinction between pathological (e.g., PNI) and trait (e.g., NS) measures of VN. With a clear understanding of what each scale represents and how expressions of GN and VN are best assessed, elemental approaches can be utilised to the inform the nomological networks of these two narcissism dimensions.

**Study 2**

The aim of Study 2 was to identify the central and peripheral features of narcissism in the context of the HEXACO model of personality and adaptive self-appraisals. It was hypothesised that HH and agreeableness would represent core narcissism features and would be negatively associated with GN and VN. In addition, it was hypothesised that emotionality and extraversion would represent peripheral narcissism features and be correlated in opposite directions with GN and VN. The extent to which each HEXACO personality factor predicted one narcissism
dimension over and above the other narcissism dimension was then examined in regression analyses. Finally, it was hypothesised that core narcissism traits would distinguish maladaptive and adaptive self-appraisals, specifically that HH and agreeableness would distinguish narcissism from self-esteem and self-compassion.

**Method**

**Participants.** Participants were 591 undergraduates (67% female, 32% male, 1% unreported), aged 18-57 ($M = 21.08$, $SD = 6.52$). The self-reported ethnicity of the sample was 61.9% Australian, 18.8% Asian, 6% Indian, 8.3% European, 1.9% African, 1.4% Aboriginal, 0.7% New Zealand, 0.7% South American, and 0.3% North American.

**Measures.** A subset of the Study 1 scales were administered again, along with additional scales. Scales from Study 1 included the NS (NS-GN: $\alpha = .85$, $M = 3.40$, $SD = 0.82$; NS-VN: $\alpha = .85$, $M = 3.20$, $SD = 0.85$), and the NPI-16 (NPI: $\alpha = .70$, $M = 1.21$, $SD = 0.17$).

**Brief Pathological Narcissism Inventory (BPNI).** The BPNI is a 28-item self-report measure that can be used in place of the PNI to assess higher-order factors (Schoenleber, Roche, Wetzel, Pincus & Roberts, 2015). Items are scored as in the PNI (PNI-GN: $\alpha = .83$, $M = 3.71$, $SD = 0.76$; PNI-VN: $\alpha = .90$, $M = 3.16$, $SD = 0.82$).

**Rosenberg Self-Esteem Scale (RSES).** The RSES is a widely used 10-item self-report measure of global self-esteem (Rosenberg, 1965). Participants rate items (e.g., ‘On the whole, I am satisfied with myself) on a scale from 1 (*Strongly disagree*) to 4 (*Strongly agree*). Responses were averaged (self-esteem: $\alpha = .89$, $M = 2.80$, $SD = 0.52$).

**Short-Form Self-Compassion Scale (SCS-SF).** The SCS-SF is a 12-item self-report scale that measures unidimensional self-compassion and is a reliable and valid alternative to the SCS (Raes, Pommier, Neff & Van Gucht, 2011). Participants rate items (e.g., ‘I try to see my
failings as part of the human condition’) on a scale from 1 (Strongly disagree) to 5 (Strongly agree). Responses were averaged (self-compassion: $\alpha = .83$, $M = 2.88$, $SD = 0.60$).

**HEXACO-60 Personality Inventory.** The HEXACO-60 Personality Inventory is a 60-item self-report scale of personality (Ashton & Lee, 2009). The inventory is a short measure of the six major domains (honesty-humility [HH], emotionality, extraversion, agreeableness, conscientiousness, openness to experience) measured by 10-items each. Participants rate items (e.g., ‘I often fantasise about performing heroic deeds’) on a scale from 1 (Not at all like me) to 5 (Very much like me). Responses were averaged (HH: $\alpha = .76$, $M = 3.36$, $SD = 0.64$; emotionality: $\alpha = .74$, $M = 3.33$, $SD = 0.61$; extraversion: $\alpha = .84$, $M = 3.15$, $SD = 0.68$; agreeableness: $\alpha = .75$, $M = 3.22$, $SD = 0.58$; conscientiousness: $\alpha = .80$, $M = 3.45$, $SD = 0.63$; openness: $\alpha = .79$, $M = 3.48$, $SD = 0.66$).

**Procedure.** The online methodology was the same as described in Study 1.

**Results**

Correlational analyses were performed to assess the relationship between narcissism scales, self-esteem, and self-compassion. These are presented in Table 3.3. As in Study 1, PNI-VN and NS-VN shared a strong, positive correlation and NPI and NS-GN shared a strong, positive correlation. Neither NPI nor NS-GN were significantly related to PNI-VN or NS-VN. PNI-GN shared a moderate, positive correlation with PNI-VN, NS-VN, NS-GN, and NPI. Self-esteem and self-compassion shared a strong, positive correlation. Both self-esteem and self-compassion were negatively correlated with PNI-VN, NS-VN and PNI-GN, and were positively correlated with NPI and NS-GN.

Correlations were then conducted between self-appraisals (narcissism scales, self-esteem, and self-compassion) and the six HEXACO factors (also see Table 3.3). As predicted, all
<table>
<thead>
<tr>
<th></th>
<th>1. PNI-VN</th>
<th>2. NS-VN</th>
<th>3. PNI-GN</th>
<th>4. NS-GN</th>
<th>5. NPI-16</th>
<th>6. RSE</th>
<th>7. SC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PNI-VN</td>
<td></td>
<td>.78**</td>
<td>.58**</td>
<td>.08</td>
<td>.05</td>
<td>-.53**</td>
<td>-.54**</td>
</tr>
<tr>
<td>2. NS-VN</td>
<td>-.47**</td>
<td></td>
<td>.04</td>
<td>.01</td>
<td>-.55**</td>
<td>-.52**</td>
<td></td>
</tr>
<tr>
<td>3. PNI-GN</td>
<td>-.46**</td>
<td>-.37**</td>
<td></td>
<td>-.13**</td>
<td>-.23**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. NS-GN</td>
<td>-.64**</td>
<td>.41**</td>
<td>.23**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. NPI-16</td>
<td>-.31**</td>
<td>.10*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Self-esteem (RSE)</td>
<td>-.32**</td>
<td>-.30**</td>
<td>-.37**</td>
<td>-.31**</td>
<td>-.33**</td>
<td>.06</td>
<td>.17**</td>
</tr>
<tr>
<td>7. Self-compassion (SC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEXACO-Honesty/Humility</td>
<td>-.32**</td>
<td>-.30**</td>
<td>-.37**</td>
<td>-.31**</td>
<td>-.33**</td>
<td>.06</td>
<td>.17**</td>
</tr>
<tr>
<td>HEXACO-Emotionality</td>
<td>.26**</td>
<td>.31**</td>
<td>.06</td>
<td>-.19**</td>
<td>-.19**</td>
<td>-.24**</td>
<td>-.28**</td>
</tr>
<tr>
<td>HEXACO-eXtraversion</td>
<td>-.40**</td>
<td>-.43**</td>
<td>.01</td>
<td>.46**</td>
<td>.41**</td>
<td>.70**</td>
<td>.53**</td>
</tr>
<tr>
<td>HEXACO-Agreeableness</td>
<td>-.23**</td>
<td>-.26**</td>
<td>-.15**</td>
<td>-.18**</td>
<td>-.23**</td>
<td>.14**</td>
<td>.31**</td>
</tr>
<tr>
<td>HEXACO-Conscientious</td>
<td>-.23**</td>
<td>-.22**</td>
<td>-.13**</td>
<td>.00</td>
<td>.01</td>
<td>.27**</td>
<td>.14**</td>
</tr>
<tr>
<td>HEXACO-Openness</td>
<td>-.09</td>
<td>-.06</td>
<td>.02</td>
<td>.09</td>
<td>.15**</td>
<td>.08</td>
<td>.07</td>
</tr>
</tbody>
</table>

*Note. N = 591. PNI = Pathological Narcissism Inventory; NS = Narcissism Scale; NPI = Narcissistic Personality Inventory; GN = Grandiose Narcissism; VN = Vulnerable Narcissism.

* p < .01. ** p < .001.
narcissism scales measured shared moderate, negative correlations with HH, and small, negative correlations with agreeableness. Unlike narcissism, self-esteem and self-compassion were positively correlated with agreeableness, self-esteem was uncorrelated with HH, and self-compassion was positively correlated with HH. Also as predicted, both PNI-VN and NS-VN were positively correlated with emotionality and negatively correlated with extraversion. Both NS-GN and NPI were negatively correlated with emotionality and positively correlated with extraversion, as were self-esteem and self-compassion. PNI-GN was uncorrelated with extraversion and emotionality. Conscientiousness was negatively related to PNI-VN, NS-VN and PNI-GN, and positively related to self-esteem and self-compassion.

To examine the unique variance explained by the HEXACO factors in each dimension of narcissism after accounting for the alternative dimension (e.g., GN after accounting for VN), regression analyses were performed and are presented in Table 3.4. Composite factors of GN and VN were calculated based on the factor structure identified in Study 1. The regressions were also conducted using just the NS-GN and NS-VN scales. These analyses produced equivalent results to those reported in Table 3.4, and thus, are not reported again here. In the first step, one narcissism factor was entered as a predictor of its counterpart. In the second step, the six HEXACO factors were entered. In the first model, each personality factor, except for openness, predicted unique variance in VN (with GN entered at step 1). In the second model, every personality factor other than openness and conscientiousness predicted unique variance in GN (with VN entered at step 1). Extraversion was the strongest predictor in both the GN and VN regressions.
Table 3.4

**Summary of Hierarchical Regression Analysis for HEXACO factors predicting unique aspects of Vulnerable and Grandiose Narcissism**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1: Composite VN</th>
<th>Model 2: Composite GN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
</tr>
<tr>
<td>Step 1-GN</td>
<td>.06</td>
<td>.04</td>
</tr>
<tr>
<td>Step 2-GN</td>
<td>.25</td>
<td>.04</td>
</tr>
<tr>
<td>Step 2-H</td>
<td>-.34</td>
<td>.05</td>
</tr>
<tr>
<td>Step 2-E</td>
<td>.44</td>
<td>.05</td>
</tr>
<tr>
<td>Step 2-X</td>
<td>-.68</td>
<td>.05</td>
</tr>
<tr>
<td>Step 2-A</td>
<td>-.17</td>
<td>.05</td>
</tr>
<tr>
<td>Step 2-C</td>
<td>-.16</td>
<td>.05</td>
</tr>
<tr>
<td>Step 2-O</td>
<td>.05</td>
<td>.05</td>
</tr>
<tr>
<td>Step 1 $R^2$</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Step 2 $R^2$</td>
<td>.44</td>
<td></td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>77.79**</td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 591. GN = Grandiose Narcissism; VN = Vulnerable Narcissism; H = Honesty/Humility; E = Emotionality; X = Extraversion; A = Agreeableness; C = Conscientiousness, O = Openness

* p < .01. ** p < .001.

**Discussion**

Correlational analyses indicated that NPI and NS-GN measure the same construct (GN) and PNI-VN and NS-VN measure the same construct (VN), which supports the factor analytic findings and conclusions drawn in Study 1. Broadly, GN and VN scales were uncorrelated, suggesting that these expressions represent distinct dimensions of personality. However, PNI-GN was correlated with all measured scales of narcissism, suggesting this scale equally represents GN and VN. Supporting a self-appraisal spectrum (Eromo & Levy, 2017), clear distinctions were evident in the correlations among adaptive self-appraisals (i.e., self-esteem and self-compassion), and maladaptive self-appraisals (i.e., grandiose and vulnerable narcissism). There were also
distinctions between these self-appraisals and personality factors, with HH and agreeableness representing the difference between adaptive and maladaptive self-appraisals.

As predicted, HH and agreeableness emerged as the core traits of narcissism, and extraversion and emotionality emerged as the differentiating traits. Interestingly, PNI-GN was associated with the core traits of narcissism, but not the differentiating traits in the bivariate analyses. This suggests that PNI-GN measures narcissism but cannot differentiate between the two narcissism dimensions. The HH factor illustrates the utility of the HEXACO model in accounting for antisocial traits and behaviours, beyond that of FFM agreeableness (Miller et al., 2017). Although agreeableness was able to differentiate narcissism from self-esteem, in that it was negatively related to narcissism scales and positively to self-esteem, it did not differentiate self-esteem from self-compassion. On the other hand, HH showed robust, negative associations with all five measures of narcissism, was unrelated to self-esteem, and positively correlated with self-compassion. The associations evident in this study demonstrate that HH may not only be central to understanding narcissism, but also to understanding optimal self-appraisals. While the other five HEXACO factors differentiated narcissism from self-compassion as a function of the strength of the relationships, HH differentiated these self-appraisals as a function of the direction of the relationship.

As predicted, emotionality and extraversion differentiated between GN and VN, however, they did not differentiate between GN and self-esteem or self-compassion. Furthermore, after accounting for the personality variance shared between narcissism dimensions, GN and VN were positively correlated. The association between extraversion and narcissism factors also increased between the bivariate and regression analyses. In sum, it appears that the core of narcissism is primarily masked by individual differences in extraversion.
(and to a lesser extent emotionality) and revealed by HH (and to a lesser extent, agreeableness). Unexpectedly, openness was associated with the NPI in the bivariate analyses and conscientiousness was associated with VN in the bivariate and regression analyses. It is suspected that this is due to measurement error and the replicability of these relationships was investigated in Study 3.

**Study 3**

Study 2 demonstrated the central and peripheral personality features associated with each dimension of narcissism and provided further evidence that the NS accurately labels GN and VN and represents the bifurcated structure of narcissism. The aim of the current study was to replicate the NS and HEXACO relationships observed in Study 2 and to conduct an exploratory analysis of the relationships between GN and VN and the HEXACO at the facet level to provide a more refined and nuanced understanding of their core and peripheral features.

**Method**

**Participants.** Participants were 421 undergraduates (66% female, 33% male, 1% unreported), aged 18-54 ($M = 21.69$, $SD = 10.80$). The self-reported ethnicity of the sample was 58.3% Australian, 19.9% Asian, 10% European, 4.5% Indian, 3.6% African, 1.4% Arabian, 0.9% North American, 0.7% South American, and 0.7% Aboriginal.

**Measures. Narcissism Scale (NS).** See Study 1 (NS-GN: $\alpha = .85$, $M = 3.40$, $SD = .81$; NS-VN: $\alpha = .80$, $M = 3.25$, $SD = 0.79$).

**HEXACO Personality Inventory-Revised (HEXACO-R).** The HEXACO-R is a 100-item self-report scale of personality (Ashton & Lee, 2007). The inventory contains six factors (above) with four 4-item facets each, as well as an additional interstitial facet Altruism/Antagonism ($\alpha$’s for factors ranged from .80-.88; $Mdn = .85$; $\alpha$’s for facets ranged from .63-.80; $Mdn = 0.73$). The
means for each factor domain were close to their respective midpoints (HH: $M = 3.36$, $SD = 0.55$; emotionality: $M = 3.32$, $SD = 0.58$; extraversion: $M = 3.20$, $SD = 0.62$; agreeableness: $M = 3.03$, $SD = 0.57$; conscientiousness: $M = 3.48$, $SD = 0.58$; openness: $M = 3.38$, $SD = 0.64$).

**Procedure.** The online methodology was the same as described in the studies above.

**Results**

To further examine core and differentiating features, correlation analyses were performed to assess the relationship between NS-GN, NS-VN, and HEXACO factors and facets. These are presented in Table 3.5.

As in Study 2, NS-GN and NS-VN shared moderate, negative correlations with the HH factor. Within the HH factor, both NS-GN and NS-VN were negatively correlated with sincerity, fairness, greed avoidance, and modesty facets. Also consistent with Study 2, both NS-GN and NS-VN shared negative correlations with the agreeableness factor. Within the agreeableness factor, NS-VN had significant, negative correlations with forgiveness, flexibility, and patience facets, and NS-GN had significant negative correlations with gentleness and flexibility facets.

Again consistent with Study 2, NS-GN was positively and NS-VN negatively correlated with extraversion. Within the extraversion factor, NS-VN was negatively correlated and NS-GN positively correlated with social self-esteem, social boldness, sociability, and liveliness facets. Also as in Study 2, NS-GN was negatively correlated with emotionality and NS-VN was positively correlated with emotionality. Within the emotionality factor, NS-VN had significant, positive correlations with fearfulness, anxiety, and dependence facets, and NS-GN had significant negative correlations with fearfulness, anxiety, and sentimentality facets.

In contrast to Study 2, NS-VN was not significantly correlated with the conscientiousness factor. NS-GN was not correlated at the factor level but was positively correlated with diligence
and perfectionism facets, and NS-VN was negatively correlated with the diligence facet. Also in contrast to Study 2, NS-GN was significantly, positively correlated with the openness factor and with inquisitiveness, creativity, and unconventionality facets. NS-VN was not significantly correlated with the openness factor or any of its facets.

Table 3.5

Bivariate Correlations between Grandiose and Vulnerable Narcissism and HEXACO Facets

<table>
<thead>
<tr>
<th>HEXACO-H</th>
<th>NS-VN</th>
<th>NS-GN</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-Sincerity</td>
<td>-.37**</td>
<td>-.38**</td>
</tr>
<tr>
<td>H-Fairness</td>
<td>-.25**</td>
<td>-.17**</td>
</tr>
<tr>
<td>H-Greed Avoidance</td>
<td>-.24**</td>
<td>-.23**</td>
</tr>
<tr>
<td>H-Modesty</td>
<td>-.17**</td>
<td>-.46**</td>
</tr>
<tr>
<td>HEXACO-E</td>
<td>.28**</td>
<td>-.23**</td>
</tr>
<tr>
<td>E-Fearfulness</td>
<td>.21**</td>
<td>-.22**</td>
</tr>
<tr>
<td>E-Anxiety</td>
<td>.43**</td>
<td>-.26**</td>
</tr>
<tr>
<td>E-Dependence</td>
<td>.13*</td>
<td>-.05</td>
</tr>
<tr>
<td>E-Sentimentality</td>
<td>.05</td>
<td>-.13**</td>
</tr>
<tr>
<td>HEXACO-X</td>
<td>-.43**</td>
<td>.47**</td>
</tr>
<tr>
<td>X-Social Self-esteem</td>
<td>-.48**</td>
<td>.42**</td>
</tr>
<tr>
<td>X-Social Boldness</td>
<td>-.25**</td>
<td>.48**</td>
</tr>
<tr>
<td>X-Sociability</td>
<td>-.27**</td>
<td>.27**</td>
</tr>
<tr>
<td>X-Liveliness</td>
<td>-.39**</td>
<td>.31**</td>
</tr>
<tr>
<td>HEXACO-A</td>
<td>-.31**</td>
<td>-.13**</td>
</tr>
<tr>
<td>A-Forgiveness</td>
<td>-.30**</td>
<td>-.01</td>
</tr>
<tr>
<td>A-Gentleness</td>
<td>-.11</td>
<td>-.15**</td>
</tr>
<tr>
<td>A-Flexibility</td>
<td>-.34**</td>
<td>-.20**</td>
</tr>
<tr>
<td>A-Patience</td>
<td>-.26**</td>
<td>-.04</td>
</tr>
<tr>
<td>HEXACO-C</td>
<td>-.02</td>
<td>.12</td>
</tr>
<tr>
<td>C-Organisation</td>
<td>-.08</td>
<td>.12</td>
</tr>
<tr>
<td>C-Diligence</td>
<td>-.19**</td>
<td>.24**</td>
</tr>
<tr>
<td>C-Perfectionism</td>
<td>.07</td>
<td>.14**</td>
</tr>
<tr>
<td>C-Prudence</td>
<td>-.10</td>
<td>-.03</td>
</tr>
<tr>
<td>HEXACO-O</td>
<td>-.05</td>
<td>.14**</td>
</tr>
<tr>
<td>O-Aesthetic Appreciation</td>
<td>.03</td>
<td>.02</td>
</tr>
<tr>
<td>O-Inquisitiveness</td>
<td>-.07</td>
<td>.15**</td>
</tr>
<tr>
<td>O-Creativity</td>
<td>-.06</td>
<td>.13*</td>
</tr>
<tr>
<td>O-Unconventionality</td>
<td>-.04</td>
<td>.13*</td>
</tr>
</tbody>
</table>

Note. N = 420. NS = Narcissism Scale; GN = Grandiose Narcissism; VN = Vulnerable Narcissism; H = Honesty/Humility; E = Emotionality; X = Extraversion; A = Agreeableness; C = Conscientiousness; O = Openness.

* p < .01. ** p < .001.
Discussion

In addition to largely replicating the results of Study 2, this study paints a comprehensive and novel picture of GN and VN, with nuanced differences evident at the facet level of each factor. The findings are consistent with the hypothesis that the HH factor and facets are central to understanding the narcissism construct (Ashton & Lee, 2007) and weaken the hypothesis that agreeableness is the central feature of narcissism (Miller et al., 2017). The NSM (Krizan & Herlache, 2017) defines GN as a functional orientation of boldness and this was supported by strong associations between GN and extraversion and the opposite pattern of relations in VN.

The NSM also defines VN as a functional orientation of reactivity which is supported by the strong negative associations between VN and the HEXACO agreeableness factor and three facets that represent the inclination to believe one can be exploited and tendencies towards anger (Ashton & Lee, 2007). GN also showed negative associations with agreeableness facets, but these were milder associations than VN. This is consistent with an established literature that links GN to reactivity to ego-threat (Bushman & Baumeister, 1998) and an emerging literature demonstrating that VN has stronger associations with reactivity to ego-threat than GN (Krizan & Johar, 2015). In light of the opposing relations between GN and VN and the extraversion factor and facets, VN may be better described as a functional orientation of timidity, rather than reactivity as proposed in the NSM.

General Discussion

To reconcile and consolidate the divided narcissism literature, it is necessary to delineate the central and peripheral features of narcissism and to identify valid scales of GN and VN. The aim of the current research was to examine how three narcissism scales represent GN and VN. First, the scales were submitted to an EFA and two narcissism factors were extracted. Then the
scales were examined in the context of the HEXACO model of personality to determine which personality traits are characteristic of both GN and VN, and which traits distinguish GN from VN. The HEXACO was also used to establish traits that distinguish narcissism from more adaptive self-appraisals. Based on the evidence from this series of studies, it can be concluded that two relatively distinct factors of narcissism can be extracted from the NPI, PNI, and NS. Furthermore, these studies provide evidence that the central personality feature of narcissism is low Honesty/Humility (HH) and the primary peripheral personality feature of narcissism is extraversion. Although agreeableness and emotionality can be considered secondary specifiers of central and peripheral narcissism, respectively, the associations with HH and extraversion were consistently stronger across studies. These results add valuable information to current models of narcissism that are based on the FFM (e.g., Krizan & Herlache, 2017; Miller et al., 2017; Samuel & Widiger, 2008) and we encourage attempts to replicate these findings in other populations.

The discrepant associations between narcissism dimensions and the FFM agreeableness facets, as well as the strong correlation between VN and FFM neuroticism, have led researchers to question VNs validity as an expression of narcissism (Miller et al., 2017; Miller et al., 2018). One important benefit of the HEXACO model and the additional sixth factor of personality is that it confirms the place of VN within the broader narcissism construct. Specifically, HH represents a clear and decisive foundation for the narcissism construct, as all four HH facets are negatively correlated with both GN and VN. The negative pole of the HH factor has been described as tendencies towards manipulative, deceitful, and machiavellistic tendencies (Mededovic, 2012). This finding is consistent with previous research that has found entitlement and exploitativeness scales to correlate with both GN and VN factors (Pincus et al., 2009; Krizan
& Herlache, 2017; Samuel & Widiger, 2008), and demonstrates the maladaptive nature of both narcissism dimensions (although VN is lower on the self-appraisal spectrum).

The elemental approach used in this study allows insight into the core narcissistic self. Previous research has demonstrated that variance that is shared with self-esteem and extraversion masks the core of narcissism and subsequently casts GN as a seemingly adaptive trait (Campbell, Rudich, & Sedikides, 2002; Jauk et al., 2017; Sedikides et al., 2004). This demonstrates why personality must be considered as a whole (i.e., core and peripheral traits), rather than as isolated factors (i.e., extraversion). PNI-GN was unrelated to peripheral traits (extraversion and emotionality), and inversely related to core traits of narcissism (HH and agreeableness). Thus, PNI-GN is not a measure of GN per se, but rather represents core narcissism as it cannot clearly differentiate the two narcissism dimensions. Notably, PNI-GN is inversely related to self-esteem and self-compassion. Low self-compassion indicates a tendency to be harshly self-critical and to have difficulties accepting negative aspects of the self (Neff, 2003). This provides insight into the quality of narcissistic ‘self-love’ and suggests that narcissism may be a motivation to be, rather than a belief that one is, superior to others (Bushman & Baumeister, 1998; Horvath, Morf, & Torchette, 2011).

Although PNI-GN may be useful for understanding core narcissism, it is important to recognise PNI-GN as a label that is inherently misleading. The narcissism field is in dire need of common nomenclature and agreement on the accurate measurement of GN and VN (Cain et al., 2008; Krizan & Herlache, 2017). The findings from the current studies are consistent with the consensus that two dimensions of narcissism can be distinguished – GN and VN – and that categorical distinctions between clinical and trait narcissism should be abandoned and replaced with a dimensional understanding of personality (Miller et al., 2017). The current findings
demonstrate that PNI-VN and NS-VN are valid measures of VN. Similarly, NS-GN and NPI are valid measures of GN. PNI-GN lower-order scales measure both GN and VN but these predominantly load on the VN factor. In this way, research that has used the PNI and NPI in conjunction can be understood as broadly measuring VN and GN, rather than pathological and non-pathological narcissism, respectively (e.g., Barry & Kauten, 2014). Although GN and VN appear to be distinct factors in this research, the relationship between GN and VN may vary at different levels of pathology or development (Derry et al., 2018; Jauk et al., 2017). However, trends towards pathology can be identified using trait narcissism scales just as well as pathological narcissism scales (e.g., Jauk et al., 2017; Miller et al., 2009, 2014).

The elemental approach used here also allows insight into how the central construct of narcissism can manifest in two seemingly antithetical personality dimensions. The four-factor structure of narcissism demonstrates that GN and VN are both characterised by intrapersonal components (relating to self-importance and superiority) and interpersonal components (relating to entitlement and exploitativeness). However, the diverse functional presentations of GN (unemotional extravert) and VN (emotional introvert) mean that the core of deceitfulness and entitled self-importance evident in both GN and VN is unlikely to be easily measured by the same scale. Intrapersonal GN is represented by authority, leadership, specialness, and omnipotence, whereas intrapersonal VN is represented by grandiose fantasy, self-sacrificing self-enhancement, contingent self-esteem, and uniqueness. Interpersonal VN is represented by devaluing others, entitlement rage, and hiding the self, whereas interpersonal GN is represented by exploitativeness, entitlement, and exhibitionism. The necessity to acknowledge both intrapersonal and interpersonal components of GN is well established (Morf & Rhodewalt, 2001;
Paulhus, 2001). To date, only the NS has explicitly investigated this dynamic in VN (Derry et al., 2017). Future models of narcissism should work to incorporate this distinction into VN.

These studies are not without limitations. Importantly, the generalisability of these findings may be limited by the use of undergraduate samples. Although this is typical of research that examine trait models of personality and even research using the PNI, future research should examine whether these findings can be replicated in other samples and if HH is able to differentiate narcissism from other personality disorders. It is also important to note that representing GN and VN as a collection of personality traits (which are considered to be stable) does not provide evidence as to the stability of each narcissism dimension within an individual. Gore and Widiger (2016) advocate that GN and VN represent states that fluctuate within an individual, and may be measured in state-oriented analyses (Crowe et al., 2018). Future research should examine whether the central and peripheral features of narcissism are better understood as traits or states, and under what conditions they are likely to fluctuate.

In spite of these limitations, our understanding of the core and peripheral features of narcissism will certainly benefit from the clarity provided by the HEXACO. Additionally, the identification of scales that accurately represent the differences between GN and VN as well as the core of narcissism will enable clarity within the current literature and allow future research to be properly integrated into this structure and common nomenclature. Acknowledging the heterogeneity of self-appraisals added further insight into narcissism dimensions and how they differ from optimal self-appraisals. Although GN can often appear to be adaptive or healthy in research using the NPI, and is often described as such (e.g., Pincus et al., 2009), understanding the common narcissistic core of low honesty/humility demonstrates that GN, as well as VN, represent a problematic self-appraisal and interpersonal orientation.
Future research should endeavour to understand the maladaptive core of narcissism. Further investigation is necessary to determine if the PNI-GN higher-order scale can be used as a valid measure of ‘core narcissism’ or whether the PNI lower-order exploitativeness scale should be excluded from the PNI, as it conflates GN with VN. This quandary also illustrates that in order to allow for clear differentiation between the two narcissism dimensions, GN or VN scales should not be developed in isolation from the other. Furthermore, with research demonstrating that VN is also present and measurable in children (Derry et al., 2018), it is crucial to investigate how each of these self-views are cultivated or developed and if they represent the same maladaptive core in children as is evidenced in adulthood. Finally, initial evidence suggests that interventions focusing on humility and self-compassion may prove useful for preventing or treating the expression of narcissistic traits. If GN and VN dimensions are confirmed to be stable personality types in adulthood, early intervention may be critical.
References


Chapter 4

Foreword

The child literature has not yet entertained the GN/VN distinction and is dispersed between unidimensional conceptualisations of narcissism (e.g., Thomaes et al., 2008) and a variety of undesigned descriptions of narcissism subtypes (e.g., Ang & Raine, 2009; Barry et al., 2010; Barry et al., 2014; Lapsley et al., 1989). This is despite theoretical and empirical evidence that suggests GN and VN are related to different etiological factors and are likely to develop prior to adulthood. Chapters 2 and 3 advanced our understanding of the structure of narcissism and the measurement of GN and VN in adults. Chapter 4 extends this understanding to children and adolescents. The empirical studies reported in this chapter sought to downward extend the Narcissism Scale to make it appropriate for use with children. These studies provide evidence that GN and VN manifestations of narcissism exist prior to adulthood and can be reliably measured in adolescents and children. These studies also demonstrate that, as in adults, VN in children is the more problematic expression of narcissism. By validating a measure of VN and GN for children and adolescents, this chapter aligns the narcissism nomenclature in adult and child research and enables empirical investigations of VN prior to adulthood through the development of the Narcissism Scale for Children.

This chapter was published in Assessment.
Chapter 4. Measuring Grandiose and Vulnerable Narcissism in Children and Adolescents: The Narcissism Scale for Children
Abstract

Clinical and empirical research have consistently distinguished two expressions of narcissism: grandiose narcissism and vulnerable narcissism. However, to date there is no psychometrically validated measure of grandiose and vulnerable narcissism for children. A measure that assesses both dimensions of narcissism in children and adolescents is necessary to understand the causes and consequences of narcissistically inflated self-appraisals prior to adulthood. In this article, four studies are presented documenting the construction and psychometric properties of a 15-item Narcissism Scale for Children, adapted from the (adult) Narcissism Scale. Partial confirmatory factor analysis supported two factors of narcissism in children (Study 1) and adolescents (Study 4), with evidence for good validity and reliability (Studies 1-4). As in adults, trait narcissism in children and adolescents consists of both grandiose and vulnerable dimensions. Enabling the measurement of multidimensional narcissism prior to adulthood has important implications for narcissism theory and future research.

Keywords: grandiose narcissism, vulnerable narcissism, scale construction, personality assessment, developmental psychopathology

Whether trait narcissism is adaptive or maladaptive during childhood is a contentious issue (Barry, Kerig, Stellwagen, & Barry, 2011). In adults, similar controversies have been informed by the identification of two dimensions of narcissism: 1) grandiose narcissism (GN), which represents the bold, extraverted, and prototypical expression of narcissism, and 2) vulnerable narcissism (VN), which represents a more reactive, neurotic, and maladaptive expression of narcissism (Krizan & Herlache, 2017; Miller, Lynam, Hyatt, & Campbell, 2017). Although substantial progress has been made towards understanding the nature and consequences of narcissism in adulthood, until recently, empirical research on narcissism in youth was scarce (Barry & Ansel, 2011). Further, despite growing interest in the bifurcated nature of narcissism in adults, no theory-driven investigation has yet been made into VN in children (Kealy, Hadjipavlou, & Ogrodniczuk, 2015). If we want to understand the origins, nature, and consequences of this complex and increasingly common trait, a measure that assesses both GN and VN in children is imperative. The goal of the present research was to construct and provide psychometric evidence for a multidimensional self-report measure of trait narcissism that is appropriate for use with children and adolescents.

**Grandiose Narcissism and Vulnerable Narcissism**

*Narcissistic personality* in adults describes a tendency to hold one’s self as more inherently important and deserving of privileges than others (Krizan & Herlache, 2017). This inflated yet distorted self-appraisal needs constant external validation and is prone to aggression when threatened, and narcissism is thought to be a defensive process developed in childhood to protect one’s self-esteem from feelings of inadequacy (Kernberg, 1975; Kohut, 1977; Morf &
Rhodewalt, 2001). Two dimensions of narcissism exist in adults: GN and VN (Cain, Pincus, & Ansell, 2008; Pincus & Roche, 2011; Wink, 1991). GN and VN are both characterised by concurrent grandiosity (self-importance) and vulnerability (need for validation), yet differ with regard to basic traits, behavioural outcomes, relationship styles, and psychopathology (Dickinson & Pincus, 2003; Given-Wilson, McIlwain, & Warburton, 2011; Miller et al., 2017). As described by Wink (1996, p.167), “narcissistic fantasies of power and grandeur can equally well lurk behind a bombastic and exhibitionistic façade as one of shyness, vulnerability and depletion.” These differences are apparent in the wide range of labels used over the last century, with GN described as thick-skinned, empowered, or oblivious narcissism, and VN described as thin-skinned, shy, or closet narcissism (for a full review of the labels used to describe narcissism see Cain et al., 2008).

GN is often considered to be adaptive or healthy and can be confounded with high self-esteem due to the overlap in intrapersonal features (Derry et al., 2017; Rosenthal & Hooley, 2010). To distinguish inflated self-appraisals (i.e., narcissism) from optimal high self-esteem, it is therefore essential to consider both intrapersonal and interpersonal processes (Morf & Rhodewalt, 2001). Intrapersonally, GN in adults may seem synonymous with high self-esteem due to positive associations with psychological wellbeing, extraversion and optimism; however, GN’s interpersonal associations with dishonesty, antagonism, aggression, and vindictiveness reveal its disruptive nature and explain its divergence from optimal functioning (Derry et al., 2017; Dickinson & Pincus, 2003; Miller, Gaughan, Pryor, Kamen, & Campbell, 2009). In sum, the intrapersonal features of GN account for the purported relationship between GN and healthy functioning (Rosenthal & Hooley, 2010).
GN is characterised by a steadfast belief in one’s grandiosity and vigilant self-regulatory processes that inhibit feelings of inadequacy (Horvath & Morf, 2009), while individuals high in VN are prone to self-doubt. In VN, feelings of inadequacy consciously coexist with grandiose fantasies, creating an unstable sense of self and poor psychological health (Pincus et al., 2009; Eromo & Levy, 2017). VN converges with GN in their aggressive and antagonistic interpersonal relations; however, unlike GN, VN is also distressing intrapersonally and associated with low self-esteem and internalising symptoms (Dickinson & Pincus, 2003; Given-Wilson et al., 2011; Pincus et al., 2009). Thus, while GN and VN share a common core of entitled self-importance and antagonism, yet they also have distinct features (Krizan & Herlache, 2017; Miller et al., 2017). That is, GN represents a distorted, inflated, and stable self-appraisal and VN represents a distorted, inflated but unstable self-appraisal (Eromo & Levy, 2017).

The distinction between GN and VN is well established in adults. Despite this, there is limited understanding of how inflated and vulnerable self-appraisals develop, as no measure currently exists to assess vulnerable narcissism in children. Being able to measure GN and VN prior to adulthood will facilitate the resolution of ongoing disputes between and within disciplines regarding the definition and development of narcissism (Miller et al., 2017). Most notably: are GN and VN independent or associated dimensions, do they have separate etiologies, is narcissism adaptive or normal in childhood or adolescence, and how can we reduce or prevent narcissism? In order to answer these questions, and to advance our clinical and theoretical understanding of this personality trait, the development of a scale and nomenclature that distinguishes between GN and VN in children is necessary. The construction of a comprehensive child measure can be informed by adult research, where substantial progress has been made in the measurement of narcissism.
Self-report Measures of Narcissism

The literature on narcissism in adults boomed when empirical research on GN was enabled by the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979). For many decades narcissism research almost exclusively investigated GN, creating a disproportionate emphasis on the more perceptible expression of narcissism (GN) and neglecting the expression that is most often present in clinical settings (VN; Cain et al., 2008; Miller et al., 2017; Pincus et al., 2009). Although Murray’s (1938) Narcissism Scale was redeveloped into the Hypersensitive Narcissism Scale (HNS) to enable research on VN (Hendin & Cheek, 1997), empirical research was not widespread until much later when a comprehensive measure of VN was provided by the Pathological Narcissism Inventory (PNI; Pincus et al., 2009). A full review of narcissism measurement is beyond the scope of the present research, but it is still uncommon for adult scales to measure both grandiose and vulnerable dimensions of trait narcissism.

To comprehensively assess both dimensions of narcissism, a common practice is for researchers to include both the NPI and the PNI/HNS as their measurements of narcissism. This practice has also been adopted in research with adolescents (e.g., Barry & Kauten, 2014). However, many PNI and HNS items are not developmentally appropriate for children (e.g., ‘I wouldn’t disclose all my intimate thoughts and feelings to someone I didn’t admire’ and ‘I can become entirely absorbed in thinking about my personal affairs, my health, my cares or my relations to others’). Further, the different response scales of the NPI and PNI (categorical versus Likert) make it difficult to compare the scores and factor structure from each scale. This has contributed to what has been described as a major criterion problem (Pincus & Lukowitsky, 2010). That is, because narcissism has been inconsistently defined and assessed across literatures, there are difficulties in integrating the diverse research fields. This problem is
particularly evident between personality disorder and personality trait literatures, and also adult and child literatures.

The Narcissism Scale (NS) was developed to address this gap in the adult trait narcissism literature (Derry et al., 2017). The NS was developed with items taken trans-theoretically from narcissism scales across research and clinical disciplines. Moreover, because narcissism is defined by an individual’s self-view as well as their social interactions (Morf & Rhodewalt, 2001), the NS assesses both self- and other-focused processes balanced across the two narcissism dimensions. The 20-item measure is composed of four factors, including interpersonal and intrapersonal domains of GN and VN, and has initial evidence for reliability and validity in both university student and community samples (Derry et al., 2017). As a result, the NS enables direct comparisons between GN and VN scales, and avoids further contributing to the criterion problem noted above. However, the NS does not have an equivalent in the child literature.

The conceptualisation of narcissism is quite different for children than it is for adults. Specifically, the child literature still endorses the unidimensional view of narcissism that defined the adult literature two decades ago. Most notably, current scales of child narcissism were developed by downward-extending the NPI, and as such, assess GN exclusively. One of these measures is the 10-item Childhood Narcissism Scale (CNS; Thomaes Stegge, Bushman, Olthof, & Denissen, 2008), which was designed to measure narcissism as a unidimensional construct and is largely composed of intrapersonal GN items (Thomaes et al., 2008). A second measure is the 37-item NPI for children (NPIC; Barry, Frick, & Killian, 2003), which has adaptive and maladaptive narcissism subscales (Barry et al., 2003). The NPIC subscales were not based on a factor analysis but on theoretical associations and internal consistency, and, because the original item pool did not include VN items, these may be best conceptualised as intrapersonal and
interpersonal GN scales (Derry et al., 2017). The absence of VN items from child narcissism scales, and the lack of measures of VN for children more generally, mean that we can’t currently distinguish between GN and VN prior to early adulthood and are at risk of conflating the two.

The failure to distinguish and measure both dimensions of narcissism is a key criticism of the current child narcissism literature (Kealy et al., 2015). To address this criticism, the purpose of the current research was to develop a scale of GN and VN that is psychometrically validated for use with youth. In this research, we define youth as composed of two developmental periods, late childhood (8 to 12) and early adolescence (13 to 17). Although the foundations of narcissism may be laid earlier, research on children’s sense of self typically begins at 8 years. At this age, most children are able to distinguish their self from others, engage in self-regulation, and self-report how they think and feel (Harter, 1985; Harter, 2015). Between the ages of 8 and 12, self-concept and personality processes (e.g., narcissism, self-esteem) begin to emerge, with distinctions amongst areas of self-concept becoming more independent and differentiated through early adolescence as individuals mature (Marsh & Ayotte, 2003). As the distinction between GN and VN may not emerge until this later period, it was necessary to investigate each developmental period separately.

**Overview of Studies**

In line with the adult literature, we believe that the core of trait narcissism is manifest in two dimensions, both of which are believed to develop in childhood: one that is associated with behavioural difficulties and psychological well-being (GN), and another that is associated with behavioural difficulties and psychological distress (VN; Krizan & Herlache, 2017; Miller et al., 2017; Wink, 1991). Accordingly, we approach narcissism as a combination of intrapersonal and interpersonal characteristics that fall under GN and VN dimensions. As this is consistent with the
factor structure of the recently developed NS, we constructed a downward extension of this scale, the Narcissism Scale for Children (NSC) in the present research. By doing so, we hope to provide researchers with a more nuanced understanding of children’s self-views and a tool to bridge the gap between narcissism in the adult and youth literature.

Based on adult research and theory, it was hypothesised that both GN and VN in children would be related to self-importance that is contingent on the approval of others. It was also hypothesised that GN would be the more adaptive trait, whilst still distinct from high self-esteem. As such, it was predicted that GN would be associated with adaptive psychological and emotional functioning (positive associations with self-esteem, negative with fear of evaluation and emotional symptoms), yet also related to problematic behaviours and social functioning (positive associations with conduct problems and peer problems, negative with prosocial behaviour). On the other hand, it was hypothesised that VN would be the more maladaptive trait and thus be associated with emotional distress as well as behavioural and social difficulties. Further, as VN is considered the more pathological narcissism dimension, it was hypothesised that VN difficulties would be associated with increased impact and severity of distress and impairment.

Four studies were conducted to develop and provide validity for the NSC. Study 1 presents the scale construction using the NS as the base, and selection of items using factor analysis and fit indices. Construct validity of the NSC in children (ages 8 to 12) was also examined through relationships between each narcissism factor and self-esteem and emotional, social, and behavioural functioning. Study 2 aimed to replicate the validity analyses from Study 1 in a second sample, and further investigated the relationship of narcissism to the severity and impact of the emotional, behavioural, and social difficulties found in children. In Study 3, the
test-retest reliability of the NSC was examined over a 6-month time interval. Finally, in Study 4 the scale was extended to an adolescent sample to examine the factor structure and construct validity of narcissism in adolescents (ages 13 to 17).

**Study 1**

**Scale Development: The Narcissism Scale for Children (NSC)**

The items for the NSC were downward extended directly from the NS, a recently developed 20-item self-report narcissism scale that has distinct grandiose and vulnerable higher-order factors, each balanced with intrapersonal and interpersonal lower-order factors. Each NSC item contained the same item content as an NS item, but the wording of most items were amended to make them appropriate for use with 8-year-olds. Amendments were made by the test development team and were qualified by calculating Flesch-Kincaid readability scores. Ten children (aged 8 to 10) were asked to give feedback to ensure comprehension and appropriate wording of each item. Based on their feedback, four items were excluded due to content overlap with other items (I get jealous if other kids get more than me/I get jealous if other kids have more stuff than I do; When other people don’t notice me, I feel like I’m worth nothing/I don’t like when other people are not interested in what I say or do; It is easy for me to get other kids to do what I want/I am good at getting other kids to do things my way; I am a really special kid/I am more special than most kids). This left an item pool of 16 items.

**Method**

**Participants.** Participants were 224 children (56% female; ages 8 to 12; \( M = 9.88, SD = 1.36 \)), and one of their parents (55% female; ages 27 to 56; \( M = 42.07, SD = 5.99 \)). The reported approximate family yearly incomes ranged from less than $20,000 to over $200,000, with a cluster (24.3%) between $100,000 and $150,000, which aligns with the Australian mean.
household income (Australian Bureau of Statistics, 2017). The parent-reported ethnicity of the sample was 73.8% Australian, 13.6% European, 3.7% New Zealand, 2.7% Asian, 1.8% North American, 1.5% African, 1.5% Indian, 0.9% Middle Eastern, 0.5% Aboriginal. All respondents in all studies were living in Australia at the time of the study.

**Measures.** Several measures were included to assess the validity of the NSC and are described below. These included measures of children’s self-views, measures of behavioural and social functioning, and measures of psychological and emotional functioning in children.

**Narcissism Scale for Children (NSC).** A downward extension of the NS (Derry et al., 2017) for use with children was developed for and administered in this study (see Table 4.1). The NSC uses items that closely mirror items from the NS but are more developmentally appropriate for children (e.g., “I have always known I am more special than most kids” instead of “I have always known that I am gifted”). The NS response scale was also reduced from 6-points, with NSC items scored on a 4-point scale with developmentally appropriate Likert-type response anchors (1 = *Not at all like me*, 2 = *Not very like me*, 3 = *A little like me*, and 4 = *Really like me*). Responses are averaged across items. Psychometric properties of the NSC are reported below.

**Childhood Narcissism Scale (CNS).** The CNS (Thomaes et al., 2008) is a 10-item child-report measure of unidimensional GN (e.g., ‘I am a very special person;’ from 1 = *Not at all* to 4 = *Completely true*). Thus, the CNS provided a measure of convergent validity. Responses are averaged across items (CNS: α = .73, M = 2.03, SD = 0.53).

**Global Self-worth (GSW).** Self-esteem was measured using the 6-item child-report GSW subscale of the Self-perception Profile for Children (Harter, 1985). Children selected which of two opposing statements best described them (e.g., ‘Some kids are very happy being the way they are’/‘Other kids wish they were different’) and then indicated if the statement was ‘Really
Table 4.1

**PCFA Pattern Matrix Factor Loadings and Descriptive Statistics for Child and Adolescent Samples (Child/Adolescent)**

<table>
<thead>
<tr>
<th>Items</th>
<th>NSC-VN</th>
<th>NSC-GN</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>I get jealous if other kids get more than me.</td>
<td>.68 / .53</td>
<td>.10 / .15</td>
<td>2.04 / 1.98</td>
<td>0.98 / 0.92</td>
<td>0.54</td>
<td>.06</td>
</tr>
<tr>
<td>When other people don’t notice me, I feel like I’m worth nothing.</td>
<td>.65 / .61</td>
<td>.02 / .16</td>
<td>2.17 / 1.98</td>
<td>1.05 / 0.96</td>
<td>1.71</td>
<td>.19</td>
</tr>
<tr>
<td>No one understands when I am upset.</td>
<td>.62 / .71</td>
<td>.01 / .13</td>
<td>2.33 / 2.43</td>
<td>1.06 / 1.09</td>
<td>-0.83</td>
<td>.09</td>
</tr>
<tr>
<td>I would rather be alone than not get what I want.</td>
<td>.61 / .69</td>
<td>.19 / .07</td>
<td>1.70 / 1.93</td>
<td>1.03 / 0.96</td>
<td>-2.10*</td>
<td>.23</td>
</tr>
<tr>
<td>I think I deserve to be treated better.</td>
<td>.55 / .66</td>
<td>.19 / .23</td>
<td>1.81 / 1.93</td>
<td>0.96 / 0.92</td>
<td>-1.20</td>
<td>.13</td>
</tr>
<tr>
<td>Sometimes I avoid people because I know they’ll disappoint me.</td>
<td>.54 / .47</td>
<td>.01 / .04</td>
<td>2.00 / 1.96</td>
<td>1.01 / 0.97</td>
<td>0.33</td>
<td>.04</td>
</tr>
<tr>
<td>I have enough to do without having to do things for others.</td>
<td>.52 / .60</td>
<td>.08 / .20</td>
<td>1.86 / 1.93</td>
<td>0.97 / 0.97</td>
<td>-0.63</td>
<td>.07</td>
</tr>
<tr>
<td>I feel angry and ashamed when I get told off.</td>
<td>.46 / .51</td>
<td>.00 / .01</td>
<td>2.72 / 2.75</td>
<td>1.02 / 0.94</td>
<td>-0.31</td>
<td>.03</td>
</tr>
<tr>
<td>I have always known I am more special than most kids.</td>
<td>.03 / .23</td>
<td>.63 / .58</td>
<td>2.29 / 2.00</td>
<td>1.02 / 0.93</td>
<td>2.74**</td>
<td>.30</td>
</tr>
<tr>
<td>I can talk my way out of anything.</td>
<td>.05 / .04</td>
<td>.61 / .51</td>
<td>2.09 / 2.09</td>
<td>0.93 / 0.94</td>
<td>-0.05</td>
<td>.01</td>
</tr>
<tr>
<td>It’s easy for me to get other kids to do what I want.</td>
<td>.08 / .08</td>
<td>.56 / .63</td>
<td>1.85 / 2.04</td>
<td>0.88 / 0.87</td>
<td>-1.96</td>
<td>.22</td>
</tr>
<tr>
<td>I am a powerful kid.</td>
<td>.09 / .17</td>
<td>.56 / .47</td>
<td>2.41 / 2.21</td>
<td>1.01 / 0.91</td>
<td>1.88</td>
<td>.21</td>
</tr>
<tr>
<td>I am probably going to be rich one day.</td>
<td>.07 / .06</td>
<td>.49 / .68</td>
<td>2.53 / 2.52</td>
<td>0.82 / 0.79</td>
<td>0.10</td>
<td>.01</td>
</tr>
<tr>
<td>I can tell what adults are thinking.</td>
<td>.08 / .08</td>
<td>.46 / .43</td>
<td>2.18 / 2.27</td>
<td>1.04 / 1.00</td>
<td>-0.81</td>
<td>.09</td>
</tr>
<tr>
<td>I like to show off all the things that I do well.</td>
<td>.15 / .07</td>
<td>.42 / .68</td>
<td>2.46 / 2.46</td>
<td>1.03 / 1.01</td>
<td>-0.03</td>
<td>.00</td>
</tr>
</tbody>
</table>

*Note.* Factor loadings > .35 in boldface. Study 1, N = 214 / Study 4, N = 130.

* p < .05. ** p < .001.
true for me’ or ‘Sort of true for me’. Items are scored from 1 (endorsed negative statement as really true) to 4 (endorsed positive statement as really true). Responses are averaged across items (self-esteem: $\alpha = .74$, $M = 3.28$, $SD = 0.49$).

**Strengths and Difficulties Questionnaire (SDQ).** Emotional symptoms (psychological functioning), behavioural, and social difficulties (interpersonal functioning) were measured using the five subscales of the 25-item parent-report SDQ (Goodman, 1997; e.g., ‘Often loses temper;’ from 1 = *Not true* to 3 = *Certainly true*). Responses are averaged (emotional symptoms: $\alpha = .74$, $M = 1.54$, $SD = 0.46$; conduct problems: $\alpha = .67$, $M = 1.31$, $SD = 0.29$; hyperactivity: $\alpha = .83$, $M = 1.72$, $SD = 0.53$; peer problems: $\alpha =.60$, $M = 1.38$, $SD = 0.34$; and prosocial behaviour: $\alpha = .77$, $M = 2.56$, $SD = 0.42$).

**Need for Approval Questionnaire.** Contingent Self-worth (CSW) served as an indicator of psychological functioning. CSW was assessed in two child-report 4-item subscales from the Need for Approval Questionnaire (Rudolph, Caldwell, & Conley, 2005) – positive CSW/social approval and negative CSW/social disapproval (e.g., ‘Being liked by other kids makes me feel better about myself’ and ‘I feel like a bad person when other kids don’t like me;’ from 1 = *Not at all like me* to 5 = *Very much like me*). Responses are averaged across items (CSW approval: $\alpha = .88$, $M = 4.01$, $SD = 0.94$; CSW disapproval: $\alpha = .88$, $M = 2.40$, $SD = 1.13$).

**Revised Social Anxiety Scale for Children.** Psychological functioning was also assessed using the 8-item child-report fear of evaluation scale of the revised Social Anxiety Scale for Children (La Greca & Stone, 1993); e.g., ‘I worry about being teased;’ from 1 = *Not at all* to 6 = *All the time*). Responses are averaged (fear of evaluation: $\alpha = .84$, $M = 3.16$, $SD = 1.31$).

**Procedure.** The recruitment strategy involved distributing advertisements that invited parents to participate in an online research survey about personality and narcissism in children.
Recruitment was primarily conducted using school newsletters, newspapers, radio interviews, community notice boards, social media, and word of mouth. The study was placed online in order to minimise the burden on participants and increase participation rates. Participation was voluntary and informed consent/assent was obtained in each survey. The parent and child surveys were administered separately and linked by a unique code to maintain confidentiality as much as possible. Instructions also specifically asked parents to allow their child to complete the survey as autonomously as possible and advised children to try to complete the survey on their own, but to ask their parent for help if they had any questions.

**Results**

Prior to running the analyses, assumptions were checked and the data were screened for outliers. Eight univariate outliers were identified using z-scores (>3.29), and two multivariable outliers were identified using Mahalanobis distance (>34.53). All outliers were removed (Tabachnick & Fidell, 2007). Missing values for each scale were analysed using Little’s Missing Completely at Random (MCAR) test. Data were found to be missing completely at random and were imputed using Estimation Maximisation (EM). No more than 2% of the data in any scale were missing.

**Factor Analysis.** To examine the factor structure of the NSC in a child population, an unrestricted partial confirmatory factor analysis (PCFA) was conducted using maximum likelihood extraction and direct oblimin rotation (Gignac, 2009). A PCFA was used because multidimensional narcissism has not been examined in children, therefore the analysis was exploratory.

To determine how many factors to extract, a parallel analysis was run using the procedure provided by O’Connor (2000). In line with this analysis, a two-factor model was specified. One
cross-loading item was identified and removed (Tabachnick & Fidell, 2007). A two-factor model was again specified and all items loaded onto one of two factors. Factor 1 had an eigenvalue of 4.07 and explained 27% of the total variance. Item loadings ranged from .46 to .68 with skewness (.60) and kurtosis (.25) estimates indicating adequate normality for the factor. Factor 2 had an eigenvalue of 2.21 and explained 15% of the total variance. Item loadings ranged from .42 to .63 with skewness (.13) and kurtosis (.23) estimates indicating adequate normality.

The two factors were Vulnerable Narcissism (NSC-VN; 8 items, $\alpha = .80$, $M = 2.07$, $SD = 0.66$, 95% CI [1.97, 2.16]), and Grandiose Narcissism (NSC-GN; 7 items, $\alpha = .74$, $M = 2.25$, $SD = 0.60$, 95% CI [2.16, 2.33]). Face validity was confirmed with NSC-VN items capturing themes of superiority, entitlement, envy, avoidance, shame, and anger, while NSC-GN items captured themes of specialness, authority, exhibitionism, and exploitativeness. Entitled self-importance is the core of narcissism and was represented in both scales. Each factor was also composed of items measuring both intrapersonal narcissism and interpersonal narcissism (Derry et al., 2017). Table 4.1 presents a summary of the analysis.

Model fit was assessed by using the null and implied model (Bartlett’s test and Goodness-of-fit chi-square values) to calculate incremental and absolute close-fit indices (i.e., Tucker-Lewis index [TLI]; Comparative Fit Index [CFI]; Standard Root Mean-square Residual [SRMR] and the Root Mean-square Error of Approximation [RMSEA]; Gignac, 2009). The two-factor solution had good model fit, $TLI = 0.93$, $CFI = 0.95$, $SRMR = 0.04$, $RMSEA = 0.04$.

Validity Analyses. There was a positive correlation between the two NSC scales, $r(222) = .29$, $p < .001$. There were also positive correlations between the CNS and both subscales, NSC-GN, $r(222) = .66$, $p < .001$ and NSC-VN, $r(222) = .35$, $p < .001$. There were no overlapping items between the CNS and NSC. NSC-VN, NSC-GN, CNS, and self-esteem were not
significantly related to child age or sex, however, small correlations were present with parent-reported family income (NSC-VN: \( r(222) = -.27, p < .001; \) NSC-GN: \( r(222) = -.17, p < .05; \) CNS: \( r(222) = -.15, p < .05; \) self-esteem: \( r(222) = .17, p < .05 \)).

**Measures of Psychological and Emotional Functioning.** To examine construct validity, correlational analyses were performed between children’s self-appraisals (self-esteem, CNS, NSC-GN, NSC-VN) and indicators of psychological functioning (CSW, fear of evaluation, and emotional symptoms). These are presented in Table 2. NSC-GN, NSC-VN and CNS all had positive correlations with CSW. NSC-VN was also negatively correlated with self-esteem and positively correlated with fear of evaluation and emotional symptoms. NSC-GN was not significantly correlated with self-esteem, fear of evaluation, or emotional symptoms and diverged from self-esteem not only in the size, but also in the direction of the relationships, across all constructs.

To examine the discriminant and incremental validity of the two factors, regression analyses were performed and are presented in Table 2. NSC-VN was significantly correlated with all outcome variables so was entered at the first step and NCS-GN at the second step. NSC-VN accounted for unique variance in all measures of psychological functioning. Furthermore, examination of the coefficients demonstrated that the variance shared with NSC-VN accounts for the correlation between NSC-GN and CSW disapproval. The inclusion of NSC-GN in the second step resulted in an increase in the percentage of variance explained for CSW approval and self-esteem. Thus, in this study, the predictive value of narcissism for these indices of psychological functioning is predominantly contained in VN.
Table 4.2

Validity of the Narcissism Scale for Children (NSC; Child Sample) – Psychological and Emotional Functioning

<table>
<thead>
<tr>
<th></th>
<th>Self-esteem</th>
<th>CSW - Approval</th>
<th>CSW - Disapproval</th>
<th>Fear of Evaluation</th>
<th>SDQ - Emotional Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>-.06</td>
<td>-.28**</td>
<td>-.34**</td>
<td></td>
<td>-.34**</td>
</tr>
<tr>
<td>CNS</td>
<td>.03</td>
<td>.41**</td>
<td>.19**</td>
<td>.17*</td>
<td>-.07</td>
</tr>
<tr>
<td>NSC-GN</td>
<td>.04</td>
<td>.26**</td>
<td>.14*</td>
<td>.07</td>
<td>-.07 (-.02)</td>
</tr>
<tr>
<td>NSC-VN</td>
<td>-.37**</td>
<td>.37**</td>
<td>.59**</td>
<td>.52**</td>
<td>.20** (.22*)</td>
</tr>
</tbody>
</table>

Regression

<table>
<thead>
<tr>
<th></th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.13**</td>
<td>.14**</td>
<td>.35**</td>
<td>.27**</td>
<td>.04** (.05**)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSC-VN</td>
<td>-.37**</td>
<td>.37**</td>
<td>.59**</td>
<td>.52**</td>
<td>.20** (.22**)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>.02*</td>
<td>.03*</td>
<td>.00</td>
<td>.01</td>
<td>.02 (.01)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSC-VN</td>
<td>-.39**</td>
<td>.31**</td>
<td>.57**</td>
<td>.52**</td>
<td>.23** (.25**)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSC-GN</td>
<td>.15*</td>
<td>.16*</td>
<td>-.03</td>
<td>-.08</td>
<td>-.13 (-.12)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total R²</td>
<td>.16**</td>
<td>.16**</td>
<td>.35**</td>
<td>.27**</td>
<td>.06** (.06**)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05. ** p < .001.

Note. Study 1, N = 214 (Study 2, N = 122). CNS = Childhood Narcissism Scale; GN= Grandiose Narcissism; VN = Vulnerable Narcissism; CSW = Contingent Self-Worth; SDQ = Strengths and Difficulties Questionnaire; sr = semipartial correlation.
Although self-esteem was not significantly correlated with NSC-GN, including NSC-GN in the regression analysis increased $R^2$. Examination of the coefficients revealed that NSC-VN acted as a suppressor variable for NSC-GN. That is, accounting for the variance associated with NSC-VN enhanced the importance of NSC-GN by suppressing irrelevant NSC-VN variance in NSC-GN. Although NSC-GN and NSC-VN are weakly correlated, in the case of children who score highly in NSC-GN, but not NSC-VN, it is likely they would be characterised by positive self-esteem.

**Measures of Behavioural and Social Functioning.** Correlational analyses were performed between children’s self-appraisals and indicators of interpersonal functioning (SDQ conduct problems, hyperactivity, peer problems, prosocial behavior) and are presented in Table 4.3. Both NSC-GN and NSC-VN had negative correlations with prosocial behaviour and positive correlations with conduct problems and hyperactivity. NSC-VN was also positively correlated with peer problems. CNS was only significantly correlated with hyperactivity. NSC-GN differed from self-esteem in the size and direction of the relationships across all constructs.

Regression analyses were performed and are presented in Table 4.3. NSC-VN was entered at the first step and NSC-GN at the second step. NSC-VN accounted for unique variance in all measures of behavioural and social functioning with the inclusion of NSC-GN in the second step resulting in an increase in the percentage of variance explained for conduct problems and prosocial behaviour. The variance shared with NSC-VN accounts for the correlation between NSC-GN and hyperactivity.

**Discussion**

For decades, extensive theoretical and empirical work on trait narcissism in adults has supported a bi-dimensional view consisting of GN and VN (Cain et al., 2008; Miller et al., 2017;
### Table 4.3

**Validity of the Narcissism Scale for Children (NSC; Child Samples) – Behavioural and Social Functioning**

<table>
<thead>
<tr>
<th></th>
<th>SDQ Conduct Problems</th>
<th>SDQ Hyperactivity</th>
<th>SDQ Peer Problems</th>
<th>SDQ Prosocial Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-esteem</strong></td>
<td>-.26**</td>
<td>-.19**</td>
<td>-.31**</td>
<td>.27**</td>
</tr>
<tr>
<td>CNS</td>
<td>.13</td>
<td>.16*</td>
<td>.04</td>
<td>-.13</td>
</tr>
<tr>
<td>NSC-GN</td>
<td>.25** (.25*)</td>
<td>.19** (.15)</td>
<td>.01 (.09)</td>
<td>-.20** (.04)</td>
</tr>
<tr>
<td>NSC-VN</td>
<td>.27** (.26**)</td>
<td>.28** (.23**)</td>
<td>.17* (.19*)</td>
<td>-.27** (.31**)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Regression</strong></th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSC-VN</td>
<td>.07** (.07**)</td>
<td>.08** (.05**)</td>
<td>.03* (.04*)</td>
<td>.08** (.10**)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Step 2**     |     |    |     |    |     |    |     |    |
| NSC-VN         | .03** (.03) | .01* (.00) | .00 (.00) | .02* (.01)               |
| NSC-GN         | .21** (.18*) | .24** (.19*) | .17* (.17*) | -.22** (.32**)          |

| **Total R²**   |     |    |     |    |     |    |     |    |
|                | .11** (.09**) | .09** (.06*) | .03* (.04*) | .09** (.11**)            |

*Note.* Study 1, N = 214 (Study 2, N = 122). CNS = Childhood Narcissism Scale; GN = Grandiose Narcissism; VN = Vulnerable Narcissism; SDQ = Strengths and Difficulties Questionnaire; sr = semipartial correlation. *p < .05. **p < .001.
Pincus & Roche, 2011; Wink, 1991). Despite evidence that both dimensions may emerge in childhood, theory-driven investigation during this crucial developmental period has been absent. To our knowledge, this is the first study to demarcate GN and VN in children, with the goal of constructing and providing initial psychometric evidence for a scale that assesses both narcissism dimensions. Factor analytic results and scale psychometrics provided evidence for the reliability of two separate narcissism factors. Regression analyses support the validity of GN and VN in children and demonstrate the importance of including both when evaluating the correlates and consequences of narcissism.

GN and VN tend to share a small, positive correlation in adults (Miller et al., 2011; Wink, 1991). In our results with children, the two factors were significantly correlated and shared important variance. Specifically, although both NSC-VN and NSC-GN significantly predicted maladaptive behavioural and social functioning, when the variance shared with NSC-VN was removed, NSC-GN was associated with more positive psychological functioning. On the other hand, even after accounting for variance shared with NSC-GN, NSC-VN predicted unique variance in emotional, behavioural, and social difficulties. This confirms that VN is the more maladaptive expression in children, as it is associated with both intrapersonal and interpersonal dysfunction. This consistent with findings in adult samples (Cain et al., 2008; Given-Wilson, et al., 2011; Miller et al., 2017; Wink, 1991) and illustrates that only measuring GN in children risks oversimplifying and misunderstanding the narcissism construct.

**Study 2**

Study 1 is the first to provide a measure of VN in children and to examine its relationship with GN and psychological, emotional, behavioural, and social functioning. Study 2 aimed to provide further evidence for the convergent validity of the NSC by replicating the pattern of
associations with problematic emotional, behavioural, and social functioning found in Study 1. Study 2 also aimed to provide evidence for the potential clinical relevance of child narcissism by extending these problematic associations to examine parent-reports of the seriousness of the problems, the length of time the problems have been present, and the impact of the problems on the child’s and family’s life. It was predicted that scores on NSC-GN would be associated with increased severity of behavioural problems, and NSC-VN would be associated with increased severity of emotional, behavioural, and peer problems. It was also predicted that NSC-VN would be associated with an increased impact on the child’s and family’s life (as judged by child distress, home life interference, and family burden).

Method

Participants. Participants were 122 children (52% female; ages 8 to 12; $M = 10.10$, $SD = 1.53$), and one of their parents (88% female; ages 27 to 67; $M = 42.06$, $SD = 6.08$) who visited a local science centre during school holidays. The parent-reported ethnicity of the sample was 61.3% Australian, 17% European, 12.1% Asian, 4.0% North American, 1.6% South American, 1.6% New Zealand, 1.6% Aboriginal, and 0.8% African. Parent-reported approximate family yearly incomes ranged from less than $20,000 to over $200,000, with a cluster (24.2%) between $100,000 and $150,000. Participants either saw the study advertised and scheduled an appointment or were centre visitors who volunteered. Advertisements were emailed to the centre members and displayed in school newsletters, notice boards, and online parenting pages.

Measures. A subset of the measures in Study 1 was administered (coefficient alphas, means, and standard deviations in parentheses): NSC-GN ($\alpha = .70$; $M = 2.21$, $SD = 0.53$); NSC-VN ($\alpha = .71$; $M = 2.16$, $SD = 0.53$); self-esteem ($\alpha = .76$; $M = 3.13$, $SD = 0.60$); SDQ - emotional symptoms ($\alpha = .79$; $M = 1.54$, $SD = 0.46$), conduct problems ($\alpha = .69$; $M = 1.26$, $SD = 0.32$),
Parents who felt concern over their child’s difficulties (n = 81) also completed the impact supplement of the SDQ-E (Goodman, 1999). The first section asked them to indicate if their child experienced difficulties (e.g., 0 = No, 1 = Yes/minor, 2 = Yes/definite, 3 = Yes/severe) in four areas: emotions (M = 0.77, SD = 0.86), concentration (M = 0.67, SD = 0.81), behaviour (M = 0.41, SD = 0.65), getting along with others (M = 0.26, SD = 0.51). If the parent indicated severe difficulties, they then indicated the impact: how long the difficulties had been present (1 = Less than a month to 4 = Over a year) and if they cause the child distress or interfere with other areas (1 = Not at all to 4 = A great deal).

Procedure. Upon arrival, children completed informed consent and assent with their parents. Following this, parents and children completed their measures on computers on opposite sides of the room.

Results

Prior to running the analyses, assumptions were checked and the data were screened for outliers. Two univariate outliers were identified and removed. Missing values (<2%) were analysed and data were found to be MCAR and imputed.

Correlational analyses were performed between NSC and SDQ subscales to replicate the findings of Study 1 and are presented in Table 4.2 and 4.3 in brackets. There was a positive correlation between NSC-GN and NSC-VN, \( r(120) = .40, p < .001 \). NSC-VN and NSC-GN were not significantly related to child age, sex, or parent-reported family income. The same strength, direction, and significance was found for all NSC and SDQ correlations here as was found in Study 1, except that hyperactivity and prosocial behaviour were not significantly correlated with hyperactivity (\( \alpha = .70; M = 1.73, SD = 0.48 \)), peer problems (\( \alpha = .60; M = 1.38, SD = 0.37 \)), prosocial behaviour (\( \alpha = .78; M = 2.63, SD = 0.40 \)).
NSC-GN in this study. SDQ-E correlations were also examined and are presented in Table 4.4. NSC-VN was positively correlated with severity of emotional, behavioural, and peer problems, as well as impact on child distress, home life interference, and temporal length of difficulties. NSC-GN was not significantly correlated with severity or impact of child difficulties.

Regression analyses are presented in Table 4.3. In this sample, the coefficients demonstrated that the variance shared with NSC-VN accounts for the correlation between NSC-GN and conduct problems. As in Study 1, NSC-VN contributed unique variance to all SDQ scales, even after shared variance with NSC-GN was accounted for. SDQ-E regressions are presented in Table 4.4. NSC-VN, but not NSC-GN, contributed unique variance to severity of emotional, behavioural, and peer difficulties, as well as impact on child distress, home life interference, and temporal length of difficulties.

**Discussion**

This study generally replicated the results of Study 1. Results with respect to NSC-VN were replicated, although this was not always the case with NSC-GN. Results also indicate that NSC-VN may be of clinical relevance in children. In sum, although NSC-GN and NSC-VN are correlated in children, the predictive value of child narcissism is predominantly contained in NSC-VN. NSC-VN was related to parents’ reports of emotional, behavioural, and peer problem severity. Further, parents reported increased impact on child distress, home life interference, and length of difficulties. Together, these results reinforce the importance of separating GN and VN in child research, and suggest that the NSC may be a valuable tool for researchers interested in child behavioural and emotional difficulties.
Table 4.4

Validity of the Narcissism Scale for Children (NSC; Child Sample) – Clinical Impact

<table>
<thead>
<tr>
<th></th>
<th>SDQ-E Emotions</th>
<th>SDQ-E Concentration</th>
<th>SDQ-E Behaviour</th>
<th>SDQ-E Get on with others</th>
<th>SDQ-E Child Distress</th>
<th>SDQ-Interfere Home life</th>
<th>SDQ-Interfere Friendships</th>
<th>SDQ-Burden Family</th>
<th>SDQ-E Length of Difficulties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 122</td>
<td>n = 122</td>
<td>n = 122</td>
<td>n = 122</td>
<td>n = 81</td>
<td>n = 81</td>
<td>n = 81</td>
<td>n = 81</td>
<td>n = 81</td>
</tr>
<tr>
<td>NSC-GN</td>
<td>.00</td>
<td>.07</td>
<td>.09</td>
<td>-.03</td>
<td>-.06</td>
<td>.01</td>
<td>-.16</td>
<td>-.04</td>
<td>.07</td>
</tr>
<tr>
<td>NSC-VN</td>
<td>.31**</td>
<td>-.03</td>
<td>.28**</td>
<td>.22*</td>
<td>.26*</td>
<td>.28*</td>
<td>.11</td>
<td>.18</td>
<td>.29**</td>
</tr>
</tbody>
</table>

Regression

<table>
<thead>
<tr>
<th></th>
<th>ΔR²</th>
<th>Sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
<th>ΔR²</th>
<th>sr</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>.09**</td>
<td>.00</td>
<td>.08**</td>
<td>.05*</td>
<td>.07*</td>
<td>.08*</td>
<td>.01</td>
<td>.03</td>
<td>.08**</td>
<td>.00</td>
<td>.01</td>
<td>.02</td>
<td>.00</td>
<td>.01</td>
<td>.01</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>NSC-VN</td>
<td>.31**</td>
<td>-.03</td>
<td>.28**</td>
<td>.22*</td>
<td>.26*</td>
<td>.28*</td>
<td>.11</td>
<td>.18</td>
<td>.29**</td>
<td>.00</td>
<td>.01</td>
<td>.02</td>
<td>.00</td>
<td>.01</td>
<td>.01</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Step 2</td>
<td>.02</td>
<td>.01</td>
<td>.02</td>
<td>.03</td>
<td>.01</td>
<td>.05</td>
<td>.01</td>
<td>.01</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>NSC-VN</td>
<td>.33**</td>
<td>-.07</td>
<td>.27**</td>
<td>.25**</td>
<td>.30**</td>
<td>.30**</td>
<td>.18</td>
<td>.21</td>
<td>.28*</td>
<td>.00</td>
<td>.01</td>
<td>.02</td>
<td>.00</td>
<td>.01</td>
<td>.01</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>NSC-GN</td>
<td>-.13</td>
<td>.09</td>
<td>-.03</td>
<td>-.13</td>
<td>-.16</td>
<td>-.10</td>
<td>-.22</td>
<td>-.11</td>
<td>-.04</td>
<td>.01</td>
<td>.08**</td>
<td>.07</td>
<td>.09</td>
<td>.09</td>
<td>.06</td>
<td>.04</td>
<td>.09</td>
<td>.09</td>
</tr>
<tr>
<td>Total R²</td>
<td>.11**</td>
<td>.01</td>
<td>.08**</td>
<td>.07*</td>
<td>.09*</td>
<td>.09*</td>
<td>.06</td>
<td>.04</td>
<td>.09*</td>
<td>.01</td>
<td>.01</td>
<td>.02</td>
<td>.00</td>
<td>.01</td>
<td>.01</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
</tbody>
</table>

Note. SDQ-E = Extended Strengths and Difficulties Questionnaire, GN= Grandiose Narcissism, VN = Vulnerable Narcissism, sr = semipartial correlation.

* p < .05. ** p < .001.
Study 3

The previous two studies provide support for the factor structure, internal reliability, convergent and divergent validity of the NSC. One aspect not yet examined is the stability of the NSC factors in children. Test-retest reliability is a prominent measure of scale reliability in personality assessment, and quantifies the extent to which similar scores are obtained when a scale is administered on different occasions. Personality traits are defined as relatively enduring patterns of behaviour, thought and feeling; thus we expect to find strong correlations between measurements across different contexts and time periods (Roberts, 2009). This is true of trait narcissism and has been demonstrated in both adult (Derry et al., 2017) and child research (Thomaes, et al., 2008). Study 3 examined the test-retest reliability of the NSC over a 6-month time interval.

Method

Participants. Participants were 137 children (48% female; ages 8 to 12; $M = 9.99$, $SD = 1.40$), of which 91 completed the follow-up survey (52% female; ages 9 to 13; $M = 10.40$, $SD = 1.32$). The reported approximate family yearly incomes ranged from less than $20,000 to over $200,000, with a cluster (24.4%) between $100,000 and $150,000. The parent-reported ethnicity of the sample was 78.5% Australian, 11.1% European, 3% Asian, 3% North American, 2.2% African, and 2.2% Aboriginal.

Measures. The NSC was administered at two time intervals (coefficient alphas, means, and standard deviations reported below).

Procedure. The online methodology was the same as that described in Study 1, participants were emailed after six months and completed the same survey online.
Results

Although attrition was a problem, the attrition rate (33%) was acceptable given the correlational nature of the intended analyses (Gustavson, Soest, Karevold, & Roysamb, 2012). Prior to running the analyses, assumptions were checked and the data were screened for outliers. No outliers were identified. Missing values (<2%) were analysed and data were found to be MCAR and imputed.

**NSC-GN.** At Time 1, the mean NSC-GN score was 2.08 ($SD = .55$). Internal reliability was .70. At Time 2, the mean NSC-GN score was 2.19 ($SD = .61$). Internal reliability was .76. The 6 month test-retest correlation was strong and positive, $r(89) = .68$, $p = < .001$.

**NSC-VN.** At Time 1, the mean NSC-VN score was 2.18 ($SD = .52$). Internal reliability was .77. At Time 2, the mean NSC-GN score was 2.22 ($SD = .54$). Internal reliability was .77. The six month test-retest correlation was strong and positive, $r(89) = .70$, $p = < .001$.

Discussion

The results support the test-retest reliability of both NSC-GN and NSC-VN in children. This provides preliminary evidence that narcissism, as measured by the NSC, is a stable construct that is reliable over a relatively brief developmental time frame (6 months) in children. This is consistent with previous research on trait narcissism in children that found the CNS to be stable over a 2- and 6-month time interval ($r = .76$ and $r = .68$, respectively; Thomaes et al., 2008) and trait narcissism in adults, which found the NS to be stable over a 1-month time period ($r = .79 - .88$; Derry et al., 2017).

**Study 4**

The studies above provide psychometric evidence that the downward extension of the NS for adults into the NSC for use with children aged 8- to 12- years was successful. One remaining
question is how this scale can be used with adolescents, if at all. Although self-concept is more simplistic in children than in adults due to the limitations in their cognitive skills (Harter, 2015), this becomes more complex and differentiated during adolescence and adulthood (Harter, 2015; Marsh & Ayotte, 2003). In Study 1, strong evidence for a two-factor solution (GN and VN) was found; however, in their investigation of the NS in adults, Derry and colleagues (2017) found four factors, as both GN and VN were composed of intrapersonal and interpersonal factors. Additionally, researchers have speculated that some level or expression of narcissism may be adaptive in facing the challenges of adolescence (Hill & Lapsley, 2011; Wink, 1992), which makes an investigation of the external correlates of the NSC relevant to this developmental period. Thus, the aim of Study 4 was to investigate the psychometric properties of the NSC and its relationship to psychological and interpersonal functioning in early adolescence. In this study, we repeated the Study 1 procedure using an adolescent sample of non-university students and compared the results to those found in Study 1 with children.

Method

Participants. Participants were 137 adolescents (67% female; ages 13 to 17; \( M = 14.47, SD = 1.19 \)), and their parents (84% female; ages 28 to 66; \( M = 44.99, SD = 6.41 \)), recruited in the same manner as Study 1. The reported approximate family yearly income ranged from less than $20,000 to over $200,000, with a cluster (24.4%) between $100,000 and $150,000. The parent-reported ethnicity of the sample was 77.8% Australian, 6.6% Asian, 8.1% European, 3.5% New Zealand, 2.2% African, and 1.4% North American.

Measures. The same measures as in Study 1 were administered (coefficient alphas, means, and standard deviations in parentheses for all except the NSC): CNS (\( \alpha = .85; M = 1.75, SD = 0.48 \)); self-esteem (\( \alpha = .74; M = 2.94, SD = 0.55 \)); fear of evaluation (\( \alpha = .88; M = 3.48, SD = 0.68 \)).
SD = 1.35); CSW: approval (α = .84; M = 3.85, SD = 0.88), disapproval (α = .88; M = 2.53, SD = 1.13); SDQ: emotional symptoms (α = .79; M = 1.63, SD = 0.51), conduct problems (α = .69; M = 1.32, SD = 0.33), hyperactivity (α = .70; M = 1.57, SD = 0.44), peer problems (α = .60; M = 1.51, SD = 0.39), prosocial behaviour (α = .78; M = 2.52, SD = 0.42).

**Procedure.** The online methodology was the same as that described in Study 1.

**Results**

Prior to running the analyses, assumptions were checked and the data were screened for outliers. Six univariate outliers and one multivariate outlier were identified and removed. Missing values (<2%) were analysed and data were found to be MCAR and imputed.

**Factor Analysis.** An unrestricted PCFA was conducted using maximum likelihood extraction and direct oblimin rotation.

A parallel analysis was run and, in line with this, a two-factor model was specified, with all items loading onto one of the two factors. The resultant PCFA model replicated the structure of the factor model found in Study 1. No items cross-loaded on the two factors. However, fit statistics were not acceptable, TLI = 0.80, CFI = 0.87, SRMR = 0.07, RMSEA = 0.09. Inspection of the scree plot, eigenvalues, and the residual correlation matrix suggested the presence of two additional factors. Thus, a four-factor model was specified. Fit indices indicated the four-factor solution had good fit (Gignac, 2009), TLI = 0.95, CFI = 0.97, SRMR = 0.05, RMSEA = 0.04. Although fit indices supported a four-factor solution and the items converged with the NS model, two items cross-loaded and with these items removed the internal consistencies of two of the four factors were not acceptable (α = .64-65). Thus, the two-factor solution was retained.

The resultant scale replicated the GN/VN two-factor structure found in Study 1, with the same items in each factor. Factor 1 (VN: α = .82; M = 2.21, SD = 0.53) had an eigenvalue of 4.38
and explained 29% of the total variance. Item loadings ranged from .47 to .71 with skewness (.46) and kurtosis (.15) estimates indicating adequate normality for the factor. Factor 2 (GN: $\alpha = .77; M = 2.21, SD = 0.53$) had an eigenvalue of 2.47 and explained 16% of the total variance. Item loadings ranged from .43 to .68 with skewness (.05) and kurtosis (.51) estimates indicating adequate normality. A summary of the analysis, as well as an item-level comparison of mean differences between the child and adolescent samples, is presented in Table 4.1.

**Construct Validity.** To explore convergent validity in adolescents, we examined the relations amongst the NSC, CNS, and self-esteem. NSC-GN and NSC-VN were correlated, $r(128) = .28, p < .001$. The CNS had positive correlations with NSC-GN, $r(128) = .67, p < .001$ and NSC-VN, $r(128) = .35, p < .001$. NSC-VN, NSC-GN, CNS and self-esteem were not significantly related to child age or income. However, both NSC-GN and CNS were correlated with gender, both being more prevalent in adolescent males, GN: $r(128) = -.30, p < .001$; CNS: $r(128) = -.26, p < .05$. In addition, the relations of NSC-GN, NSC-VN, CNS, and self-esteem with the other measures were examined to test convergent and divergent validity. The results are presented in Table 4.5.

**Measures of Psychological and Emotional Functioning.** Other than a positive correlation with CSW approval, NSC-GN in adolescents was not significantly correlated with psychological or emotional difficulties, yet, it was clearly distinct from self-esteem. As in Study 1, self-esteem had significant, negative correlations with CSW, fear of evaluation, and emotional symptoms, indicating decreased psychological and emotional difficulties. NSC-VN was significantly correlated with all outcome variables demonstrating increased psychological and emotional difficulties as well as low self-esteem in adolescents with increased VN.
Table 4.5

Validity of the Narcissism Scale for Children (NSC; Adolescent Sample)

<table>
<thead>
<tr>
<th></th>
<th>Self- Esteem</th>
<th>CSW Approval</th>
<th>CSW Disapproval</th>
<th>Fear of Evaluation</th>
<th>SDQ Emotional</th>
<th>SDQ Conduct Problems</th>
<th>SDQ Hyperactivity</th>
<th>SDQ Peer Problems</th>
<th>SDQ Prosocial</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNS</td>
<td>.08</td>
<td>.39**</td>
<td>.01</td>
<td>.05</td>
<td>.00</td>
<td>.18*</td>
<td>.05</td>
<td>.08</td>
<td>.02</td>
</tr>
<tr>
<td>NSC-GN</td>
<td>.15</td>
<td>.24**</td>
<td>.00</td>
<td>-.03</td>
<td>-.08</td>
<td>.17</td>
<td>.05</td>
<td>.02</td>
<td>-.09</td>
</tr>
<tr>
<td>NSC-VN</td>
<td>-.39**</td>
<td>-.26**</td>
<td>.48**</td>
<td>.50**</td>
<td>.30**</td>
<td>.23*</td>
<td>.14</td>
<td>.46**</td>
<td>-.23**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regression ΔR²</th>
<th>st</th>
<th>ΔR²</th>
<th>st</th>
<th>ΔR²</th>
<th>st</th>
<th>ΔR²</th>
<th>st</th>
<th>ΔR²</th>
<th>st</th>
<th>ΔR²</th>
<th>st</th>
<th>ΔR²</th>
<th>st</th>
<th>ΔR²</th>
<th>st</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.15**</td>
<td>.07**</td>
<td>.23**</td>
<td>.25**</td>
<td>.09**</td>
<td>.05*</td>
<td>.02</td>
<td>.21**</td>
<td>.05**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSC-VN</td>
<td>-.39**</td>
<td>.26**</td>
<td>.48**</td>
<td>.50**</td>
<td>.30**</td>
<td>.23*</td>
<td>.14</td>
<td>.46**</td>
<td>-.23**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>.07**</td>
<td>.03*</td>
<td>.02</td>
<td>.03*</td>
<td>.03*</td>
<td>.01</td>
<td>.00</td>
<td>.01</td>
<td>.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSC-GN</td>
<td>-.44**</td>
<td>.20**</td>
<td>.50**</td>
<td>.53**</td>
<td>.33**</td>
<td>.19*</td>
<td>.13</td>
<td>.47**</td>
<td>-.21*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSC-GN</td>
<td>.27**</td>
<td>.18*</td>
<td>-.14</td>
<td>-.18*</td>
<td>-.17*</td>
<td>.11</td>
<td>.02</td>
<td>-.11</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total R²       | .22** | .10** | .25** | .29** | .12** | .06* | .02 | .22** | .05* |

Note. N = 130. CSW = Contingent Self-worth; SDQ = Strengths and Difficulties Questionnaire; CNS = Childhood Narcissism Scale; GN= Grandiose Narcissism; VN = Vulnerable Narcissism; sr = semipartial correlation. * p < .05. ** p < .001.
Regression analyses were performed using the same methodology as Study 1. The results are presented in Table 4.5. Consistent with the correlations, NSC-GN explained unique variance in CSW approval and NSC-VN predicted unique variance in each of the outcome variables. Although self-esteem, fear of evaluation, and emotional symptoms were not significantly correlated with NSC-GN, including NSC-GN in the regression analysis for these variables increased $R^2$. Examination of the coefficients revealed that in these three instances, NSC-VN acted as a suppressor variable for NSC-GN. Although NSC-GN and NSC-VN are correlated in adolescents, in the case of an individual who scores highly in NSC-GN but not NSC-VN, it is likely they would be characterised by low fear of evaluation and emotional symptoms, and high self-esteem.

**Measures of Behavioural and Social Functioning.** NSC-GN in adolescents was not significantly correlated with conduct problems, hyperactivity, or prosocial behavior, as it was in children. Self-esteem was negatively correlated with all the measured interpersonal variables except prosocial behaviour, indicating decreased behavioural and social difficulties. NSC-VN was negatively correlated with prosocial behaviour and positively correlated with conduct problems and peer problems in adolescents, demonstrating increased behavioural and social difficulties.

Regression analyses were again performed using the same methodology as Study 1 and results are presented in Table 4.5. Regressions largely replicated the correlational analyses. VN was entered in step one and predicted unique variance in conduct problems, peer problems and prosocial behaviour. The inclusion of NSC-GN in step 2 did not account for any unique variance.

**Comparison of Correlations between Children and Adolescents.** Fisher Z transformations were conducted to determine whether there were any differences in the strength
of the correlations obtained in children (Tables 4.2 and 4.3) and adolescents (Table 4.5). VN and peer problems were correlated in both children, $r(222) = .17, p < .05$, and adolescents, $r(128) = .46, p < .001$, and the difference between these scores was statistically significant ($Z = -2.84, p < .001$). The remainder of the difference scores between the child and adolescent correlations were not significant.

**Discussion**

The two-factor structure of the NSC in children, composed of GN and VN subscales, was replicated in adolescents. This evidence from an adolescent sample adds a valuable resource to a field dominated by adult scales. Unlike in Study 1 with children, a trend towards the same four-factor solution found in adults using the adult scale (NS) was found, with each dimension further bifurcated into intrapersonal and interpersonal subscales (Derry et al., 2017). However, this four-factor solution lacked reliability. This may indicate that the four factor solution found in adults is just starting to emerge as cognitive skills improve and personality and self-concept increase in complexity in early adolescence. The distinction between intrapersonal and interpersonal narcissism may develop during adolescence, as self-concept becomes more differentiated and refined towards the end of this developmental period (Marsh & Ayotte, 2003; Harter, 2015).

Other interesting differences were observed in this sample. In adolescents, NSC-VN was not associated with hyperactivity in adolescents, and NSC-GN was not associated with hyperactivity or conduct problems as it was in children. In fact, NSC-GN seemed maladaptive only as a function of its relationship to NSC-VN. Indeed, the progression towards GN being associated with intrapersonal well-being, as is generally found in adults (Wink, 1991, Miller et al., 2017), was evidenced in the regression suppressor effects. During this developmental period, GN may not have the same negative consequences that are evident in childhood as seen in Study
1 and previous work on GN (e.g., Barry et al., 2003). Adolescence is generally considered to be a period of heightened self-enhancement, self-protection, and decreased self-regulation (Alicke & Sedikides, 2009). Thus, GN seems to reflect something fundamental to and perhaps normative in this stage of identity development (Hill & Lapsley, 2011). GN may become maladaptive if these tendencies persist to a high degree after the adolescent period, when adult tasks are undertaken. To determine whether GN can be considered adaptive in adolescence, further empirical investigation is needed to explore the correlates and consequences of GN, after accounting for VN.

**General Discussion**

Based on the evidence in the current adult narcissism literature that there are two observable expressions and measurable dimensions of narcissism, the aim of the current study was to develop a measure of GN and VN that is appropriate for use with children and adolescents. In four studies, initial evidence was provided for the validity and reliability of the NSC. The NSC reliably measures GN and VN prior to adulthood and these studies demonstrate that the two scales are correlated and stable over time. In general, high scores on the NSC-VN scale are associated with maladjustment in both psychological and interpersonal functioning in children and adolescents. High scores on the NSC-GN scale are associated with indicators of maladjustment only in so far as the variance shared with NSC-VN. In these studies, there is little evidence for relations between NSC-GN and behavioural or social difficulties in children or adolescents and some evidence for psychological and emotional benefits, particularly in adolescence. The distinction between GN and VN in youth allows for a greater understanding of narcissism. As such, the NSC can be used as a tool that enables future researchers and clinicians to gain a more comprehensive and nuanced picture of the nature and development of children’s self-appraisals and their varied impact on psychological and interpersonal functioning.
In moving the narcissism field forward, an explicit primary objective is that researchers recognise the distinction between GN and VN (Miller et al., 2017). Narcissism theory has long held that there are two expressions of narcissism that are speculated to develop from different early experiences (Kernberg, 1975; Kohut, 1977). Extensive empirical work has now confirmed this bifurcated nature of narcissism in adults and found GN and VN to be associated with divergent consequences, both interpersonally and intrapersonally (Cain et al., 2008; Dickinson & Pincus, 2003; Miller et al., 2017; Wink, 1991), yet we have lacked this understanding prior to adulthood. The NSC is a comprehensive yet brief measure of youth narcissism and can be used to bridge the gap between the conceptualisation of narcissism in adult and child research. In addition to providing evidence that GN and VN are separable factors evident in children and adolescents, the NSC also enables longitudinal studies on GN and VN that cross developmental boundaries from childhood to adolescence, and from there into adulthood using the NS (Derry et al., 2017). The studies here provide psychometric evidence for the construct validity of NSC-GN and NSC-VN in youth and demonstrate the importance of considering both narcissism dimensions in future research if we are to gain an accurate comprehensive understanding of the origins and consequences of narcissism.

By providing evidence that VN and GN are separable and can be measured reliably in children, these studies address recent criticisms of the unidimensional conceptualisation and measurement of childhood narcissism (Kealy et al., 2015). These studies also highlight the importance of investigating VN in children and adolescents, as it is associated with heightened difficulties across a broad range of functional domains, as well as poor self-concept. Further, VN is linked to parent-reported concerns regarding the severity and impact of child difficulties, parent reports of the temporal stability of these difficulties and test retest evidence for construct
stability. In sum, it appears that across these domains, it is mainly VN that is associated with dysfunction in youth. Similar to adults, VN in children and adolescents is the more maladaptive expression of narcissism as it is associated with both psychological distress and impaired functioning (Derry et al., 2017; Pincus et al., 2009; Wink, 1992). Experts have proposed that priority should be given to research that examines the possibility that narcissism in children is maladaptive (Thomaes, Brummelman, Reijntjes, & Bushman, 2013). These studies contribute to this field objective by providing the first systematic inquiry into VN prior to adulthood.

Past research has found GN to be deleterious in youth (Barry et al., 2003; Barry & Kauten, 2014; Thomaes et al., 2013). We found evidence consistent with these findings when examining zero-order relationships between GN and indices of behavioural and social functioning. However, once VN was accounted for, the negative consequences of GN in children and adolescents were less clear, beyond the tendency to base their worth on other’s approval. Specifically, regression analyses revealed that the negative consequences of GN were due to variance shared with VN. One possibility is that GN in children and adolescents is maladaptive only insofar as it is related to VN. If replicated, this has important implications for our current understanding of narcissism in children, which has only assessed GN (e.g., Kealy et al., 2015; Thomaes et al., 2013). Caution must be taken before describing GN as adaptive in children, as significant associations with positive outcomes were still largely absent. Yet, in the case of adolescents who have high GN but moderate or low VN, this inflated self may buffer the social anxiety and self-esteem instability that characterise this developmental period and may be somewhat normative to the adolescent experience (Harter, 2015; Hill & Lapsley, 2011).

Although GN did not have the same maladaptive pattern as VN, this inflated self-appraisal was clearly distinct from ‘high self-esteem’. High self-esteem is characterised by an
intrinsic belief in one’s worth, which is not associated with feelings of specialness or deservingness (Harter, 1985; 2015). Narcissism is characterised by the belief that one is better or deserves more than others, yet a feeling of dissatisfaction with who one is as a person (Krizan & Herlache, 2017; Thomaes et al., 2008; Pincus et al., 2009). These distinctions are evident in the item content of each scale. The difference between self-esteem and narcissism was further demonstrated by the validity analyses. As theoretically predicted, the differential associations with CSW and fear of evaluation showed that narcissism is based on external sources, whereas self-esteem is based on internal sources (Harter, 2015). These findings are also consistent with the dynamicself-regulatory processing model of narcissism, which describes narcissism as a chronic pursuit of self-affirmation (Morf & Rhodewalt, 2001).

Narcissism has been described as a distorted and inflated self-appraisal, with the distinction between GN and VN being the fragility and compensatory nature of this appraisal (Eromo & Levy, 2017). NSC-VN was consistently associated with low self-esteem despite the entitled superiority evidenced in the item content of the scale. The relationship between NSC-GN and self-esteem was more complex, as illuminated by the regression suppressor effects in adolescents. This developing self-esteem dynamic from childhood through to adulthood may provide some evidence towards the ‘mask model’ of narcissism, which proposes that narcissism is a defence mechanism whereby low self-esteem is masked by a grandiose and inflated self-appraisal to create an outer appearance of high (albeit fragile) self-esteem (Horvath & Morf, 2009; Zeigler-Hill, Clark, & Pickard, 2008). Alternatively, the correlation between GN and VN could provide evidence that they are consciously oscillating expressions of narcissism within an individual (Pincus et al., 2009). Longitudinal research is needed to follow the relationship between self-esteem and narcissism over time to see if the distinction between GN and VN is
truly the stability of their self-view (Eromo & Levy, 2017). In sum, to further explore and understand the relationship between narcissism and self-esteem and its developmental function, it is important to separate GN and VN for research and conceptual purposes, even in young children.

These studies have limitations. Firstly, while correlational and unrestricted factor analysis provide valuable preliminary insights, we recommend a restricted factor analysis with larger samples to affirm the factor structure of narcissism in children and adolescents. Secondly, although this preliminary evidence supports the construct validity of the NSC scales, behavioural difficulties were measured using parent reports. Although this provides an insight into the child’s daily functioning in the home and is free of shared rater variance from children’s own reports, these do not provide a comprehensive assessment of pathology. Future research using multi-method techniques and teacher reports will be necessary to further examine the diverse consequences of GN and VN in youth. Finally, the analyses reported here suggest that GN and VN are already present in childhood, however the age at which narcissism first develops was not established. Future research is needed to determine the origin and etiology of narcissism, and whether GN and VN are distinct phenotypes (Wink, 1991), oscillating states within the same individual (Pincus et al., 2009), or whether overt and exhibitionistic expression of narcissism in childhood develops into a more differentiated and pathological narcissism in early adulthood (Brummelman et al., 2016).

Our understanding of child narcissism and the development of narcissism will certainly benefit from the ability to measure GN and VN in youth, and the current studies provide the tool needed for such investigations to flourish. An exclusive focus on GN ignores important variance in children’s self-appraisals, and increases the likelihood that the narcissism construct is
oversimplified and misunderstood. The importance of distinguishing VN from GN for research and conceptual purposes has been established in adults and is relevant in youth, with VN being the more destructive and problematic expression of narcissism. Further, this research illustrates that there are important differences between feeling satisfied with one’s self (self-esteem) and believing the self to be more special than others (narcissism) in youth, with these nuances in self-appraisal having important implications for emotional well-being, peer relations, and behavioural outcomes (Eromo & Levy, 2017). Indeed, adult research has long held that an inflated and unstable self-appraisal under threat is an important cause of violence (Baumeister et al., 1996). Thus, it is critical to understand how each of these self-views are cultivated or prevented in child-rearing and educational practices. The development of the NSC enables much needed empirical research on trait narcissism prior to adulthood by providing a valid and reliable multidimensional measure of childhood narcissism.
References


Chapter 5

Foreword

Chapters 2 - 4 demonstrate the importance of distinguishing between grandiose and vulnerable narcissism in order to draw clear conclusions around narcissism in adults, adolescents, and children. This may be especially true when examining possible etiological factors associated with narcissism. Substantial theoretical and empirical literature support the conjecture that narcissism develops in childhood and that GN and VN may have different developmental pathways. However, research on the origins of narcissism suffers from a number of limitations; primarily, inconsistent conceptualisations of narcissism and parenting dimensions, and a failure to consider the contribution of the child’s innate dispositions. In order to provide a solid foundation for future longitudinal investigations of narcissism, Chapter 5 sought to demarcate the parenting styles and child temperaments that are associated with narcissism in children. These studies demonstrate that GN and VN are each associated with different parenting styles and child temperaments. Furthermore, these differences indicate that these two narcissism expressions may have divergent functional and self-regulatory dynamics. Future investigations into the origins of narcissism will benefit from the measurement precision gained in this chapter.

This chapter is currently under publication review.
Chapter 5. *Nature and Nurture: Parent and Child Influences on Grandiose and Vulnerable Narcissism in Children*
Abstract

Current research on the development of narcissism in children is limited by unidimensional conceptualisations of narcissism, an exclusive focus on parenting, and retrospective reporting. Before the origins of narcissism can be determined or addressed, it is necessary to identify the contributing factors relevant to both grandiose and vulnerable dimensions of narcissism. The current study investigates parent and child variables theoretically that are relevant to the development of narcissism. Children (N = 137; ages 8 - 12) and their parent completed an online survey that measured parenting, temperament, and heterogeneous self-appraisals. Different child temperaments and parenting styles were associated with grandiose narcissism, vulnerable narcissism, and self-esteem in children. The results demonstrate the utility of measurement tools that distinguish between different dimensions of narcissism and provide evidence that narcissism and self-esteem are distinct by at least mid-childhood. Demarcating the relevant parenting styles and child temperaments enables future longitudinal research on the development of narcissism to be conducted with measurement precision.

Keywords: childhood narcissism, parenting, temperament, vulnerable narcissism

Since Freud’s 1914 essay, *On Narcissism*, speculations around the causes of narcissism have proliferated. Psychoanalytic theories suggest that this inflated, yet volatile, self-appraisal is a symptom of a chronic search for approval, resulting from emotional deprivation in early caregiver relationships (Kernberg, 1975; Kohut, 1977). Social learning theories suggest that it results from overvalued parenting (Brummelman et al., 2015b; Millon, 1981). Still others implicate a role of the child’s innate temperament (Elliot & Thrash, 2001; Tracy & Robins, 2003). After 100 years of theoretical and empirical investigation, the jury is still out on the origins of narcissism. Furthermore, the theoretically relevant variables continue to evolve. This may be due to difficulty operationalising psychoanalytic descriptions of parenting (Brummelman et al., 2015c), or inconsistent operational definitions of narcissism (Kealy, Hadjipavlou, & Ogrodniczuk, 2015).

Given the purported rise in narcissistic traits (Twenge & Campbell, 2009), identifying which factors are associated with grandiose and vulnerable narcissism in children will advance our understanding of the nature of narcissism. Furthermore, this can facilitate future investigations into the development of narcissism, as well as the treatment and prevention of narcissism in clinical and societal contexts.

Narcissism in adults is defined as an inflated yet fragile self-concept and is speculated to conceal underlying feelings of inadequacy (Morf & Rhodewalt, 2001). This common core manifests in two broad expressions of narcissism: *Grandiose Narcissism* (GN) and *Vulnerable Narcissism* (VN). Although these two dimensions are now widely recognised in adults (Cain, Pincus, Ansell, 2008; Miller & Campbell, 2008; Miller, Lynam, Hyatt, & Campbell, 2017; Wink, 1991) the GN/VN distinction is new to the child narcissism literature (Derry, Bayliss, & Ohan,
Both GN and VN are necessarily characterised by the same dynamic of concurrent grandiosity (self-inflation) and vulnerability (sensitivity to ego-threat) yet in many ways they are diametrically opposed. For example, VN represents thin-skinned narcissism and is associated with low self-esteem, introversion, and psychological distress, and GN represents thick-skinned narcissism and is associated with high self-esteem and psychological well-being (Miller et al., 2017, Wink, 1991). GN appears to be adaptive intrapersonally as it is associated with extraversion and well-being; however, GN is also associated with hostility and antagonism, revealing their hidden vulnerability to ego-threat (Rhodewalt & Morf, 1995). Both GN and VN also have pathological relevance as subtypes of narcissistic personality disorder in adults (Russ, Shedler, Bradley, & Westen, 2008). However, the present research examines trait narcissism in children using a dimensional model of personality. This model assumes that the distinction between trait and pathology is a difference in the severity of narcissism, and the distinction between GN and VN is a difference in the expression of narcissism (Miller & Campbell, 2010).

Almost all narcissism discourse implies a causal role of parenting. Two major pathways are evident from prominent theoretical descriptions of the development of narcissism. The first pathway emphasises the role of devalued parenting and is consistent with the object-relations perspective on narcissism (Kernberg, 1975; Rothstein, 1979). According to this perspective narcissism is a consequence of empathic failures by parents during early child development. Because of these failures, there was no idealised object/parent for the child to internalise/mirror; consequently, their self-concept remained immature into adulthood. The associated parenting styles have been described as rejecting, controlling, or parent-focused parenting that uses the child to meet the parent’s needs rather than focusing on the child’s needs (Horton, 2011). The second pathway emphasises overvalued parenting and is consistent with the social-learning
perspective. According to this perspective, when the parent teaches the child that he/she is special or perfect, the child does not experience frustration of his/her limits, so retains a sense of infantile omnipotence in adulthood (Kohut, 1977; Millon, 1981). Parenting styles that are overvaluing, overindulgent, or overly permissive therefore deny the child judicious responding and the child learns that he/she is superior to others (Horton, 2011).

There have been several attempts to operationalise and test clinical theories of narcissism but these have involved three main problems. First, there is a lack of common nomenclature and clarity around the factors of narcissism used in different studies. This means that conclusions about ‘narcissism’ drawn from one study may not generalise to those drawn in another. In particular, the lack of distinction between GN and VN is a major issue (Kealy et al., 2015). Second, there has been great difficulty consolidating psychoanalytic descriptions with empirical measures of parenting. Conceptualisations of parenting dimensions and styles have evolved over the last decades, with traditional parenting dimensions (warmth, monitoring, and control; Baumrind, 1971) expanding to allow greater measurement precision (e.g., Horton & Tritch, 2014). To determine which of the many parenting styles should be included in research on the development of narcissism, a comprehensive study is needed to identify the unique associations between narcissism and parenting constructs that are conceptually similar (e.g., is devalued parenting better operationalised as psychological control or coldness and is overvalued parenting better conceptualised as parental laxness or overvaluation?). Finally, there has been an overreliance on retrospective research methods. Although research examining narcissism using undergraduates is illuminating, response validity is limited by retrospective reporting and shared method variance. Using both child- and parent-reports allows researchers of narcissism to avoid recall biases and capture the proposed factors at the time they are most relevant.
A systematic review of 10 empirical studies attempted to integrate the findings on parenting and narcissism but remained inconclusive (Longobardi, 2016). Yet, despite many contradictory outcomes reported in the review, some consistencies were apparent. The early dichotomy between authoritarian versus permissive parenting styles evolved into a dichotomy between cold versus overvaluing parenting dimensions (labels still broadly reflecting undervalued- and overvalued-parenting). However, four (rather than two) parenting constructs consistently predicted variance in narcissism, albeit often in ways that contradicted previous findings. This was often due to the incorporation of new scales in the research studies as operational definitions of parenting and narcissism evolved. The findings from young adults’ reports of their recollections of their parents’ parenting styles are summarised here.

Warm/responsive parenting styles were associated with healthy narcissism (intrapersonal GN) and self-esteem. Laxness/low monitoring parenting were associated with both healthy and maladaptive narcissism (interpersonal GN) in some studies, but this was not replicated in others. Parental overvaluation was associated with both GN and VN in some studies, but not others. In studies that considered psychologically controlling/intrusive parenting, it was consistently associated with VN, but inconsistently with GN. Unsurprisingly, Longobardi (2016, p. 92) concluded, “a great deal of work remains to be done in order to reach any definite conclusions.”

One recent study provided an important contribution to this literature. Brummelman et al. (2015b) conducted a longitudinal study of 565 children (ages 7-12) and their parents. To test the object-relations against social-learning theories of narcissism, they measured child GN (using the Childhood Narcissism Scale) and self-esteem, as well as parental overvaluation and warmth. Over four 6-month waves, overvaluation predicted higher GN and warmth predicted higher self-esteem in children, revealing a critical difference in the development of these two self-appraisals.
GN was associated with parental overvaluation, not warmth. This was taken as evidence towards social-learning and falsification of object-relations theories of narcissism. Self-esteem was associated with parental warmth, which provides evidence towards the importance of accepting and supportive parenting environments in the development of healthy self-esteem (Kernberg, 1975; Kohut, 1977). This study constitutes an important step towards determining the origins of narcissism and differentiating narcissism from self-esteem. However, it has notable limitations. First, the authors did not measure parental psychological control or laxness, so it is not known if any variance in child narcissism was accounted for by these parenting dimensions. Second, VN was not measured, which is perhaps the biggest limitation of child narcissism research to date (Kealy et al., 2015; Miller et al., 2017).

Child narcissism research has also overlooked the possible contribution of the child’s innate temperament in the expressions of narcissism. Approach-avoidance temperaments have been linked to narcissism in adults and are considered integral to the development of personality and self-regulation (Elliot & Thrash, 2001; Tracy & Robins, 2003). Approach temperament (i.e., the behaviour activation system; BAS) is a neurobiological sensitivity to positive stimuli such as reward or achievement. Avoidance temperament (i.e., the behavioural inhibition system; BIS) is a neurobiological sensitivity to negative stimuli such as punishment or failure. These sensitivities are observable from infancy throughout the lifespan and are closely linked to inclinations towards certain emotions and behaviours. Additionally, research in adults has linked high approach and low avoidance temperament to GN, and high avoidance temperament to VN (Foster & Trimm, 2008). Self-esteem is also linked to high approach and low avoidance, but these relationships are weaker than those found with GN (Heimpel, Elliot, & Wood, 2006). Clinicians have suggested that early temperamental hypersensitivity may predispose a child to
narcissism (McWilliams, 2013). Child temperament may also interact with parenting experiences to create a reliance on external regulation and shape the child’s personality over time (Thomaes, Bushman, Orobio de Castro, & Stegge, 2009; Lauk et al., 2017).

The Diathesis-Stress model is often utilised to explain the development of psychopathology in childhood (e.g., Gazelle & Ladd, 2003) and may be useful in understanding which factors are necessary and sufficient for the development of narcissism in children. This model postulates that stressful conditions (e.g., maladaptive parenting) activate a diathesis (e.g., latent temperamental vulnerabilities) to develop coping strategies (e.g., narcissism). Consistent with this model and the reviewed literature, it is possible that a child who is innately vigilant and responsive to positive feedback may encourage excessive parental overvaluation, resulting in GN (i.e., an inflated self-appraisal that requires constant positive affirmation; Thomaes et al., 2009). Similarly, a child who is vigilant and responsive to negative feedback may encourage covertly controlling parenting practices which become introjected over time, resulting in VN (i.e., an inflated self-appraisal that oscillates with feelings of inadequacy and shame; Ryan & Brown, 2003). Parental psychological control is reactive to and contingent on behaviour, therefore it may interact with temperament, whereas warmth is generally stable so is not hypothesised to interact with temperament. Similarly, overvaluation implies reciprocity, but it is not expected that approach temperament would interact with parental laxness to create narcissistic tendencies.

In sum, to paint a comprehensive picture of the factors relevant to narcissism in children, four critical limitations need to be addressed. It is imperative that 1) both GN and VN are measured, 2) all four theoretically-relevant parenting variables are considered, 3) temperament and potential interactions are explored, and 4) parents and children report their own self-perceptions. There is evidence that each of the reviewed factors are relevant, but in order to
determine which predict unique variance, all must be included in one study. To our knowledge, there has been no investigation into narcissism and parenting that separates GN and VN in children and that measures both parenting styles and child temperament. The aim of this study is to test the hypothesis that GN in children is uniquely related to increased parental overvaluation, laxness, and child approach temperament, and VN in children is uniquely related to increased parental psychological control, child avoidance temperament, and decreased parental warmth. This study also explores the interaction between overvaluation and approach temperament in predicting GN in children and the interaction between psychological control and avoidance temperament in predicting VN in children. Finally, the current study aims to replicate findings that self-esteem in children is related to warmth.

Method

Participants. Participants were 137 children (51% female), aged 8-12 (\(M = 10.03, SD = 1.39\)), and a parent (89% female; aged 24-55; \(M = 41.45, SD = 6.91\)). The ethnicity of the sample was 81.3% Australian, 10.5% European, 2.4% Asian, 2.4% North American, 2.4% African, 0.9% Aboriginal. Parent-reported approximate family yearly incomes ranged from less than $20,000 to over $200,000, with a cluster (23.3%) between $100,000 and $150,000.

Measures. Internal consistencies and descriptive statistics for all measures are reported in Table 5.1 (p. 190).

Narcissism Scale for Children (NSC). Child GN and VN were measured using the 12-item NSC (Derry et al., 2018). The NSC is a downward extension of the Narcissism Scale (NS; Derry et al., 2017), which was designed to explore GN and VN in adults. Similar to the NS, the NSC contains two factors: NSC-GN (7 items) and NSC-VN (8 items) which have good evidence for internal reliability and construct, concurrent, and content validity. Participants are given
statements (e.g., ‘I think I deserve to be treated better;’ from 1 = Not at all like me to 4 = Really like me). Responses were averaged across items.

**Global Self-worth Scale (GSW).** Self-esteem was measured using the 6-item GSW from the Self-Perception Profile for Children (Harter, 1985). Items are forced-choice and rated along a 4-point scale with two possible responses for each statement (e.g., ‘Some kids are very happy being the way they are’ or ‘Other kids wish they were different’; Really true for me; Sort of true for me). Responses were averaged across items.

**BIS/BAS scales (BIS-avoidance; BAS-approach).** Approach-avoidance temperament was measured by the BAS (13-item) and BIS (7-items) scales for children (Muris, Meesters, de Kanter, & Timmerman, 2005). The child scale was downward extended from the adult BIS/BAS scales and the two-factor structure in children has demonstrated reliable internal consistency and construct validity. Participants are given statements (e.g., ‘I worry about making mistakes;’ from 1 = Not true to 4 = Very true). Responses were averaged across items.

**Parenting Style Questionnaire (PSQ-warmth).** Parental warmth was measured by the warmth/involvement factor from the PSQ (Lamborn, Mounts, Steinberg, & Dornbusch, 1991), and was adapted in this study to be parent-report (e.g., ‘My child can count on me to help him/her out if he/she has some kind of problem’). Lower scores indicate parental coldness and higher scores indicate parental warmth. Response scales vary between items, so values were standardised and then responses were averaged.

**Parental Psychological Control Scale (PC).** Parent psychological control was measured using the 7-item child-report PC (Barber, 1996). PC measures intrusive, inhibiting, and manipulative parental behaviours and has been linked to introjected regulation. Participants are
given statements (e.g., ‘My parent is always trying to change me’; from 1 = Not like her/him to 3 = A lot like her/him). Responses were averaged.

**Parenting Scale (PS-laxness).** The extent to which a parent enforces rules or consequences for negative behaviour was measured using the 11-item parent-report laxness factor from the Parenting Scale (Arnold, O'Leary, Wolff, & Acker, 1993). Participants are asked to rate their parenting on a 7-point scale between two statements (e.g., ‘I coax or beg my child to stop’ or ‘I firmly tell my child to stop’). Responses were averaged.

**Parental Overvaluation Scale (POV).** The 7-item POV (Brummelman, Thomaes, Nelemans, Orobio de Castro, & Bushman, 2015a) was used to measure the extent to which parents consider their child to be more special and entitled than other children (e.g., ‘My child deserves special treatment’; from 1 = Not at all true to 4 = Completely true). Responses were averaged.

**Procedure.** The recruitment strategy involved submitted advertisements to school newsletters, newspapers, community notice boards, online parenting websites, and social media. The study was placed online in order to minimise burden on participants and increase participation rates. Ethics approval for the study was obtained by the University of Western Australia Human Research Ethics Office (RA/4/1/7064).

**Results**

Prior to running the analyses, assumptions were checked and the data were screened for outliers. Six univariate outliers were identified (z-score >3.29) and three multivariate outliers were identified using Mahalanobis distance. All were removed (Tabacknick & Fidell, 2014). In this sample, warmth was positively skewed, with a tendency for parents to report high warmth. Blom’s transformation was utilised to create a score within normal limits. Missing values (less
than 2%) were analysed using Little’s Missing Completely at Random (MCAR) test. Data were MCAR and imputed using Expectation Maximisation.

To check for covariates, the main study variables were correlated with demographics, then amongst each other to determine which variables to include in the regression analyses. In Table 5.1, Pearson’s bivariate correlations are reported. Child age and gender were not correlated with any criterion variables. Family income had a small, positive correlation with self-esteem and small, negative correlation with NSC-VN. NSC-VN has positive correlations with NSC-GN, BAS-approach, BIS-avoidance, PS-laxness, and PC, and a negative correlation with self-esteem. NSC-GN had positive correlations with BAS-approach, PC, and POV. Self-esteem was positively correlated with PSQ-warmth and negatively correlated with BIS-avoidance and PC.

Table 5.1

*Internal Consistency, Means, Standard Deviation, and Correlations among Main Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>α</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. NSC-VN</td>
<td>.34**</td>
<td>-.38**</td>
<td>.23**</td>
<td>.48**</td>
<td>.12**</td>
<td>.39**</td>
<td>.20**</td>
<td>.05</td>
<td>.77</td>
<td>2.08</td>
<td>0.52</td>
</tr>
<tr>
<td>2. NSC-GN</td>
<td>.01</td>
<td>.42**</td>
<td>.14</td>
<td>-.06</td>
<td>.19*</td>
<td>.04</td>
<td>.29**</td>
<td>.70</td>
<td>2.18</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>3. Child Self-esteem</td>
<td>.16</td>
<td>-.20*</td>
<td>.21**</td>
<td>-.26**</td>
<td>-.14</td>
<td>.00</td>
<td>.78</td>
<td>3.08</td>
<td>0.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Child Approach</td>
<td>.37**</td>
<td>.11</td>
<td>.05</td>
<td>.04</td>
<td>.19*</td>
<td>.87</td>
<td>2.72</td>
<td>0.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Child Avoidance</td>
<td>.05</td>
<td>.05</td>
<td>.02</td>
<td>-.02</td>
<td>.79</td>
<td>2.67</td>
<td>0.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Parent Warmth</td>
<td>.09</td>
<td>-.18*</td>
<td>.03</td>
<td>.64</td>
<td>0.04</td>
<td>0.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Parent Control</td>
<td>.15</td>
<td>.29**</td>
<td>.71</td>
<td>1.54</td>
<td>0.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Parent Laxness</td>
<td>.15</td>
<td>.75</td>
<td>2.89</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Parent Overvaluation</td>
<td>.77</td>
<td>2.16</td>
<td>0.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05, ** p < .001.

**Moderated Regression Analyses**

Hierarchical regression analyses were conducted to examine the main effects of parenting styles and child temperament on narcissism in children as well as the predicted interactions between parenting and temperament. Analyses were conducted separately for NSC-GN, NSC-
VN, and self-esteem in children. In each regression, significantly correlated variables from the bivariate analyses were entered into a stepwise regression equation. Following the main effects, interactions were added to determine if they increased the amount of variance explained by the model. Scores for all continuous predictor variables were mean centered.

**Model 1: Grandiose Narcissism.** The main effects model was significant and is shown in Table 5.2 with non-significant predictors removed. There was a significant main effect for BAS-approach and POV in predicting NSC-GN. These main effects indicate that higher approach temperament in children as well as higher parental overvaluation were associated with increased GN in children. No main effect of PC was found, indicating that when the variance attributed to the significant predictors was controlled for, PC no longer contributed to predicting GN. Next, the interaction term between BAS-approach and POV was added to the model. $F$ change was not significant; thus, the interaction did not increase the variance explained.

**Model 2: Vulnerable Narcissism.** Consistent with the analytic procedure followed above, demographic and main study variables were entered. The main effects model was significant (Table 5.2). There was a significant effect for family income, BIS-avoidance, and PC in predicting NSC-VN. These effects indicate that lower income, higher avoidance temperament in children, and higher parenting psychological control were associated with increased VN in children. No main effects of self-esteem, BAS-approach or PS-laxness were found; thus, when the variance attributed to income, BIS-avoidance, and PC were controlled, the former no longer significantly predicted VN. The interaction term between PC and BIS-avoidance was then added. The $F$ change was not significant; the interaction term did not increase the variance explained.

**Model 3: Self-esteem.** The model was significant (Table 2). There was a main effect of income, BIS-avoidance, PC, and PSQ-warmth in predicting self-esteem. These effects indicate
### Table 5.2

*Summary of Regression Analysis for Child Temperament (C) and Parenting Styles (P) predicting Child Narcissism and Self-Esteem*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1: Grandiose Narcissism</th>
<th>Variable</th>
<th>Model 2: Vulnerable Narcissism</th>
<th>Variable</th>
<th>Model 3: Self-esteem</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE_B$</td>
<td>$\beta$</td>
<td></td>
<td>$B$</td>
</tr>
<tr>
<td>C - Approach</td>
<td>0.37</td>
<td>0.08</td>
<td>.38**</td>
<td>Family Income</td>
<td>-0.08</td>
</tr>
<tr>
<td>P - Overvaluation</td>
<td>0.20</td>
<td>0.07</td>
<td>.22**</td>
<td>C - Avoidance</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P - Control</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R$^2$</td>
<td></td>
<td></td>
<td>R$^2$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.22</td>
<td></td>
<td></td>
<td>.43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F change in $R^2$</td>
<td>19.13**</td>
<td>F for change in $R^2$</td>
<td>32.35**</td>
<td>F for change in $R^2$</td>
</tr>
</tbody>
</table>

*p < .05. **p < .001*
that higher family income, lower avoidance temperament in children, lower psychological control in parents, and higher warmth in parents were associated with increased self-esteem.

Because GN and VN were correlated in children, Models 1 and 2 were run again with the alternative narcissism dimension entered in at step 1 (i.e., VN entered at step 1 of the GN regression, and vice versa). The same relationships as reported above emerged.

Discussion

Identifying the relevant parent and child factors associated with narcissism in children is necessary to enable future research that investigates the origin and development of GN and VN. Unfortunately, previous research on parenting and narcissism has been hindered by retrospective reporting, imprecision in translating clinical parenting hypotheses, and failing to distinguish between GN and VN (Longobardi, 2016). Furthermore, to our knowledge, no study on narcissism in children has explored the role of child temperament. The aim of this research was to integrate findings from object-relations and social-learning theories with empirical research on narcissism to identify which parent and child factors predict unique variance in GN and VN in late childhood. We tested the hypothesis that GN is related to parental overvaluation, laxness, and child approach temperament, and that VN is related to parental psychological control, coldness, and child avoidance temperament. We also explored the interaction between approach and overvaluation in predicting GN, and between avoidance and control in predicting VN.

This study provided partial support for the hypotheses. Parental overvaluation and child approach temperament predicted unique variance in child GN. Parental psychological control, child avoidance temperament, and family income predicted unique variance in child VN. Interactions between parenting style and temperament were not confirmed in this study. This study provides an important step towards understanding the differences between GN and VN in
children and provides support for two prominent causal theories of narcissism. Object-relations theories can be measured using the constructs of psychological control and VN, and social-learning theories can be measured using the constructs of overvaluation and GN. In identifying clearly different patterns of predictors relevant to GN and VN, the principal finding of this study is that GN and VN in children are associated with distinct parenting styles and temperaments in children ages 8- to 12- years.

It has been proposed that a number of the controversies in the field of narcissism may be resolved by distinguishing between GN and VN (Miller et al., 2017). The need to distinguish between GN and VN in both measurement and theory is particularly relevant when exploring the origins of narcissism. Psychoanalytic theory and empirical evidence suggest that different expressions of narcissism may have distinct etiologies (Kernberg, 1975; Kohut, 1977; Miller et al., 2017). The child narcissism literature has also been criticised for not properly aligning child narcissism scales with clinical and empirical descriptions of adult narcissism and for focusing exclusively on beliefs of specialness rather than the maladaptive interpersonal features of narcissism (e.g., vulnerability, exploitativeness, and hypervigilance; Kealy et al., 2015). The current study provides evidence that GN and VN may have different developmental pathways, and that VN may be more maladaptive than GN. These findings contribute to the growing literature that reiterates the importance of acknowledging GN and VN in research and theory. By acknowledging the important differences between these dimensions of narcissism in children, future researchers will be able to avoid the conflation of constructs and theories that has clouded our understanding of child narcissism thus far (Kealy et al., 2015).

The current study also adds to research on the origins of GN and self-esteem in children. Brummelman (2015b) provided support for the social-learning theory of narcissism by finding
that parental overvaluation predicted GN over time and finding that parental warmth predicted self-esteem over time. As such, their research was the first to uncover the early socialisation and learning experiences that cultivate GN and differentiate it from self-esteem. The current study extends these findings by identifying that child temperament may be as important as parenting style; specifically, that approach temperament also predicts unique variance in GN and self-esteem in children. Having parents who believe that their child is special and who overvalue their child rather than accepting their child (both positive and negative characteristics) may cause the child to internalise these beliefs. Moreover, having an initial proclivity towards positive stimuli may cause children to seek out experiences that enhance narcissistic thoughts and behaviours. The lack of interaction in these studies may suggest that these transactions occur prior to late childhood. Thus future early childhood studies or longitudinal research can be enhanced by including measures of both parent and child factors in order to investigate interactions between parenting and temperament.

Demarcating parental coldness from psychological control provides greater precision in identifying parenting processes relevant to VN. Brummelman et al. (2015b, 2015c) concluded that their research on the origins of (grandiose) narcissism contradicted object-relations theory, because in their study, that low parental warmth was not associated with narcissism in children. Object-relations theory associates the development of (vulnerable) narcissism with descriptions of parenting in which the child is devalued or not loved for himself/herself as a person. Such descriptions have been accused of imprecision and being difficult to falsify by some researchers (e.g., Brummelman et al. 2015c). The current study clarifies these conclusions by finding object-relations theory useful in explaining VN in children, but not GN. Furthermore, the current study
clarifies that the parenting style described by object-relations theory is better captured by measures of psychological control than coldness (Horton, 2011; Ryan & Brown, 2003).

Psychological control involves socialisation pressure that primarily serves the parents over the child’s needs, thereby invalidating the child’s emotional experience (Barber, 1996). Parents can be warm while invalidating their child’s experience, as illustrated by the non-significant correlation between warmth and psychological control. As described in self-determination theory, psychological control and contingent regard from parents lead to introjected regulation in the child, where one’s actions are motivated by the desire to gain approval or avoid disapproval from others - originally, the parents (Ryan & Brown, 2003). Thus psychological control aligns with the object-relations parenting descriptions as well as the dynamics of avoidance motivation.

The current research demonstrates that GN in children is related to temperament that involves a proclivity to rewards and praise; and conversely, that VN in children is related to temperament that is responsive to punishment and criticism. This replicates findings on narcissism and approach-avoidance temperament in adults (Elliot & Thrash, 2001; Tracy & Robins, 2003) and provides new insight into the possible transactional dynamics of narcissism. Researchers and clinicians have long speculated that narcissism is symptomatic of a chronic search for approval and overreliance on external validation (Kernberg, 1975; Kohut, 1977; Morf & Rhodewalt, 2001). This study demonstrates that in children 8- to 12- years old, narcissism is associated with temperamental sensitivities that feed on external regulation, perhaps indicating an inability to internally regulate esteem. The valence of these sensitivities differ in GN and VN and may cause children to seek out or avoid certain experiences and feedback in ways that contribute to the development of a certain expression of narcissism, or vice versa. Temperament
may precede or result from parenting practices, longitudinal research is needed to address these hypotheses. These findings provide exciting new avenues of research to explore towards understanding the origins and motivational dynamics of narcissism.

The current research is considered in the context of its limitations. Firstly, although this study had adequate power for a regression analysis and was sufficient to detect significant effects, past research has shown that larger samples are needed to yield stable results on the effects of individual difference variables (e.g., Schonbrodt & Perugini, 2013). Secondly, this research is correlational. Reverse causal relations remain viable and longitudinal research with a large population-based sample is needed to identify the direction and nature of the relationships between narcissism, parenting, and temperament. Finally, self-report illuminates perceptions of behaviour and allows for fast and convenient data collection, which is useful to test preliminary hypotheses. However, to allow insight into the dynamic and dyadic nature of narcissism, experimental methods are needed to confirm what circumstances activate overvaluing or devaluing practices in parents or enhance temperamental sensitivities in children (Darling & Steinberg, 1993; Wright et al., 2017).

To date, empirical research on parenting and narcissism has been limited primarily by measurement imprecision. However, the results of the current study suggests that the divergent findings and disagreement between scholars may be consolidated by acknowledging the multidimensional nature of narcissism and the potential for multiple developmental pathways to narcissism. In order to determine what contributes to the development and maintenance of narcissism across the lifespan, it is necessary to accept the diversity of self-appraisals in children. Demarcating GN and VN in children and identifying the relevant parent and child factors will aid both theoretical and empirical research on the origins of narcissism.
References


Chapter 6

Foreword

The previous chapters provide evidence that GN and VN are different dimensions of narcissism that share a common core but appear to manifest as fundamentally divergent personalities and functional orientations in adults (Chapters 2 and 3) and children (Chapter 4). To date, research on narcissism in children has largely focused on GN reactivity to ego-threat. The findings of this thesis thus far demonstrate that VN is also present in children and is associated with greater psychosocial maladjustment than GN. The associations between VN and internalising and externalising problems (Chapter 4) as well as avoidance temperament and psychological control (Chapter 5) provide evidence towards theoretical conjecture that VN in children may also be associated with reactivity to ego-threat. The final empirical chapter of this thesis presents an investigation into the emotions experienced by children high on GN and VN when subject to an ego-threat. After being exposed to this ego-threat (a challenging maze task), VN was associated with negative self-conscious emotions that are aligned with descriptions of narcissistic rage in adults. In sum, this chapter reiterates the necessity of distinguishing between GN and VN in children and provides a catalyst for future research to consider the paradoxical combination of narcissistically inflated self-appraisals and low self-esteem in children.

This chapter (revised) has been accepted for publication in Child Development.
Chapter 6. Fearing Failure: Grandiose Narcissism, Vulnerable Narcissism and Emotional Reactivity in Children
Abstract

The distinction between grandiose and vulnerable narcissism is new to the child narcissism literature, but initial findings suggest that it may have important implications for understanding how trait narcissism is related to adjustment or maladjustment prior to adulthood. In this study, an experimental design was used to examine how both grandiose and vulnerable narcissism in children influences externalising and internalising responses to ego-threat and performance estimates. Children (N = 124; ages 8 – 12 years) completed a challenging maze task. Regression analyses showed that vulnerable narcissism in children was related to increased hostility, anger, shame, and anxiety, and that grandiose narcissism was related to children’s inflated task performance self-estimates following ego-threat. These findings illustrate the important of differentiating between self-esteem and narcissism dimensions, and, in particular, between expressions of grandiose and vulnerable narcissism prior to adulthood.

Keywords: Narcissism Scale for Children, vulnerable narcissism, narcissistic rage
Fearing Failure: Grandiose Narcissism, Vulnerable Narcissism, and Emotional Reactivity in Children.

“Success consists of going from failure to failure without loss of enthusiasm” – W. Churchill. Being able to respond positively to challenges, despite feelings of frustration, is often considered a key to success. This is especially relevant in childhood, when experiencing difficult or seemingly impossible tasks are a common part of the school day, and more broadly, development. Some children face common adversities with composure, while others experience distress. Narcissism is a personality trait that has received considerable attention in the examination of reactivity to ego-threat. Broadly defined as entitled self-importance, narcissism is characterised by extraversion and boldness, suggesting determination in the face of challenge; yet narcissism is also characterised by negative affect and reactivity, suggesting aversion to threatening situations (Krizan & Herlache, 2017; Miller, Lynam, Hyatt, & Campbell, 2017). This paradox can be resolved by distinguishing between two dimensions of narcissism: grandiose narcissism (GN) describes the former characteristics, whereas vulnerable narcissism (VN) describes the latter (Cain, Pincus, & Ansell, 2008; Wink, 1991). Although this distinction is well researched in the adult literature, little is known about the outcomes of GN and VN in children. The present study examined whether children who report higher levels of GN or VN experience adaptive or maladaptive responses to experiencing frustration on a challenging task, as measured by their emotional reactivity and performance appraisals.

Narcissism in adults is linked to pathology, yet within the personality literature it is debated as to whether such a trait, which is often found in CEOs and celebrities, may be necessary to succeed in a competitive world (Campbell & Campbell, 2009). The current study endorses the conceptualisation of narcissism as a continuous trait that is normally distributed in
adults and children (Miller & Campbell, 2010; Thomaes, Stegge, Bushman, Olthof, & Denissen, 2008). The extent to which narcissism is adaptive prior to adulthood may depend on whether the dominant presentation is grandiose or vulnerable (Derry, Bayliss, & Ohan, 2018; Hill & Lapsley, 2011). The GN/VN distinction is new to the child literature, with most previous studies in child samples using a unidimensional measure of narcissism (e.g., Thomaes et al., 2008) and others using various factors of GN (e.g., Barry, Frick, & Killian, 2003). However, initial findings suggest that VN may also be found in children and have important implications for understanding developmental adjustment (Derry et al., 2018).

GN and VN are both characterised by a common core of self-importance, as well as interpersonal antagonism, yet each has distinct features (Cain, et al., 2008; Miller et al., 2017; Wink, 1991). GN is summarised as a functional orientation of boldness, driven by approach motivation, as such combines an exaggerated sense of ability with a chronic propensity towards reward (Krizan & Herlache, 2017). In adults, GN is associated with psychological well-being and extraversion, but also antisocial behaviours (Miller et al., 2017; Derry, Ohan, & Bayliss, 2017). These findings have been replicated in children and adolescents (Thomaes et al., 2008; Derry et al., 2018). In contrast, VN is as a functional orientation of defensiveness, driven by avoidance motivation, and combines a hypervigilance to threat with a propensity for emotional dysregulation (Krizan & Herlache, 2017). In adults, VN is associated with neuroticism, low self-esteem, and hostility (Derry et al., 2017; Miller et al., 2017). These findings have now been replicated in children and adolescents (Derry et al., 2018). Both orientations are thought to be reactive to challenging situations, particularly those that threaten their inflated self-appraisals. These self-regulatory dynamics are elucidated by theoretical models of narcissism.
Psychodynamic models describes (vulnerable) narcissism as a defense mechanism against low self-esteem (Kernberg, 1975). An inflated self-appraisal that masks low self-esteem will inevitably be undermined, so to subordinate feelings of inadequacy, self-regulatory strategies are developed that scaffold and vigilantly protect this unstable self-concept (Deci & Ryan, 1995; Zeigler-Hill, Clark, & Pickard, 2008). Empirical research has yielded mixed results on the mask model of narcissism, but this may be due to the use of narcissism measures that predominantly assess GN, for which there is little evidence of underlying low self-esteem (Bosson et al., 2008; Zeigler-Hill & Jordan, 2011). Rather, the mask model is more appropriately tested with measures of VN, for which evidence for low self-esteem abounds (Cain et al., 2008; Miller et al., 2017). Descriptions of narcissism that align with the mask model are still present in the current diagnostic description of narcissistic personality disorder (NPD), which states “vulnerability in self-esteem makes individuals with NPD very sensitive to criticism or defeat… they may react with disdain, rage, or defiant counter-attacks” (American Psychiatric Association, 2013, p.671). Indeed, VN in adults is associated with heightened use of hostile and defensive self-presentation tactics as well as reactive aggression (Hart, Adams, Burton, & Tortoriello, 2017; Krizan & Johar, 2015).

While defensive strategies align with the proposed functional orientation of VN, more assertive strategies align with GN. The extended agency model describes (grandiose) narcissism as an addiction to ‘narcissistic-esteem’ that is regulated by positive feedback loops of intra- and inter-personal strategies, such as bragging, attention seeking, and an overly positive self-serving bias (Campbell & Foster, 2007; Horvath & Morf, 2010). This chronic pursuit of self-aggrandisement, coupled with exaggerated expectations, is thought to result in disillusionment and distress when increasingly inflated esteem needs are not met (Baumeister, Heatherton, &
Tice, 1993). GN is associated with assertive self-presentation tactics (Hart et al., 2017), and with self-esteem reactivity and overt aggression following insult or failure (Bushman & Baumeister, 1998; Rhodewalt & Morf, 1998).

Although one model implies hidden vulnerability under a mask of grandiosity (VN), and the other implies a delusional grandiosity that is vulnerable to ego-threat (GN), both demonstrate how reactivity may occur when narcissistic self-appraisals are challenged. Evidence from the adult literature confirms that ego-threats (feelings of frustration, failure or rejection where inflated self-appraisals are challenged) mobilise individuals with inflated self-appraisals to action. Baumeister, Smart, and Boden (1996) proposed that aggression most commonly stems from threatened egotism. This hypothesis has gained abundant empirical support, although it has almost exclusively examined GN. Indeed, GN is related to heightened overt aggression in adults (Hart, et al., 2017), with individuals high in GN under ego-threat showing the highest levels of aggressive behaviour (Bushman & Baumeister, 1998; Bushman et al., 2009; Thomaes, Bushman, & Thomaes, 2011; Twenge & Campbell, 2003). However, GN in adults is also characterised by feelings of omnipotence and invulnerability (Aalsma, Lapsley, & Flannery, 2006). Thus, individuals high in GN have the ability to maintain positive self-appraisals despite ego-threat (Hart et al., 2017; Paulhus, 1998), and are also eager to perform tasks that may enable self-enhancement following threat (Nevicka, Baas, & Ten Velden, 2016). Thus, although GN self-regulatory strategies may provoke aggressive reactivity in the short term, by preventing failure experiences from being acknowledged, they may also create more determination to self-enhance in the long-term (Horvath & Morf, 2009). Also referred to as ‘oblivious narcissism,’ these individuals seem unperturbed and even motivated by setbacks; arguably making the aggressive drive in GN somewhat adaptive. This adaptive view of GN may be particularly salient during
primary school years, as children are faced with new demands across a variety of domains and receive ongoing feedback from parents, teachers, and peers.

Threatened egotism theory refutes traditional theories that low self-esteem leads to aggression, with evidence that inflated high self-esteem (i.e., GN) has stronger associations with aggressive behaviour (Bushman et al., 2009). However, low self-esteem may still lead to aggression through its association with VN, which is another type of inflated self-appraisal. Clinical accounts identify ‘narcissistic rage’ as a fundamental characteristic of VN in adults (Kohut, 1972; Krizan & Johar, 2015). Like GN, VN is associated with overt aggression; yet unlike GN, VN is also associated with covert aggression in the form of negative emotions, self-loathing, and shame following ego-threats (Hyatt et al., 2017; Krizan & Herlache, 2017). The fusion of shame and anger has been identified as the key source of narcissistic rage (Krizan & Johar, 2015). Thus, VN aggression is fundamentally different to that of GN, as GN aggression is thought to primarily implicate active self-enhancement, competitiveness, or exploitation (Krizan & Johar, 2015). The psychodynamic literature describes VN as the more destructive expression of narcissism; it is thought to develop from childhood experiences of rejection that sculpt a shame-prone individual who responds to even minor threats with an intense rage at having their chronically denied deficiencies exposed (Kernberg, 1975; Willock, 1986). This is consistent with empirical descriptions of VN as avoidance-oriented, linked to introjected regulation, and as masking low self-esteem (Chapter 5).

Accounts of narcissistic rage were based on clinical observations and few studies have examined this hypothesis in non-clinical populations, let alone child populations. Until recently, VN had never been explored in children. This was primarily due to the fact that for many decades the adult narcissism literature measured GN exclusively (Cain et al., 2008; Miller et al.,
Indeed, diagnostic criteria still emphasise GN characteristics over VN (APA, 2013). Yet as our understanding of narcissism has evolved, so too have the instruments designed to measure narcissism. Pincus et al. (2009) were the first to create a scale that assesses GN and VN in clinical adult populations, called the Pathological Narcissism Inventory (PNI). More recently, Derry and colleagues (2017) created the Narcissism Scale that assesses GN and VN from a trait personality perspective. The NS was later utilised to inform the development of the Narcissism Scale for Children (NSC; Derry, Bayliss, & Ohan, 2018). Across these scales, the bifurcated structure of narcissism, item content of each dimension, and the associations of GN and VN with criterion variables are comparable, despite the distinct target populations. The NSC has demonstrated good reliability and validity in children and its development constitutes the first study to confirm that both GN and VN are measurable in children. GN and VN in children were related in different directions to self-esteem, as well as to different strengths and difficulties in functioning and motivational orientations, implying that only assessing GN in children is not sufficient to draw general conclusions about narcissism (Derry et al., 2018).

Prior to the NSC, research examining narcissism in children assessed mostly GN, and found narcissism to be positively related to conduct problems (Barry et al., 2003), as well as anger and aggression following ego-threat (Thomaes et al., 2008). Consistent with these and adult findings, NSC-GN was correlated with externalising but not internalising problems or fear of evaluation in children. However, child VN was showed a different pattern of results. The NSC-VN was correlated with both externalising and internalising problems, as well as a fear of evaluation and low self-esteem in children, which is consistent with adult VN research findings (Derry et al., 2018). Overall, the research indicates that, as in adults, VN in children is the more maladaptive dimension, and that in children, inflated self-appraisals can be related to lower self-
esteem. Threatened egotism research argues that inflated high self-esteem (GN) is more likely to cause aggression than low self-esteem (Baumeister et al., 1996; Bushman et al., 2009), it also acknowledges that high versus low self-esteem does not accurately represent the heterogeneity of self-appraisals. It has since been demonstrated that inflated self-appraisals can also be associated with low self-esteem (Eromo & Levy, 2017; Pincus et al., 2009). In this way, research on VN extends the threatened egotism theory by illustrating how low self-esteem co-existing with inflated self-appraisals can lead to aggression and emotional dysregulation.

In the current study, an experimental design was used to examine how GN and VN in children influence externalising and internalising responses and performance self-estimates following a mild ego-threatening experience. Feeling frustrated in the face of challenge is a frequent emotional experience in childhood, as children are developmentally experiencing increases in self-conscious emotions (Harter, 2006). This self-consciousness develops as the unrealistic positive self-views associated with middle childhood are challenged by social comparisons and feedback at school, as well as an increased ability to differentiate one’s actual-from ideal-self, as well as effort from ability (Harter, 2006). Late childhood is therefore a crucial time to explore traits that help or hinder children with these emotional experiences to ensure success at school and beyond (Harter, 2006).

Children aged 8- to 12- years were timed for 5 minutes while they completed a challenging (although not impossible) maze task. Self-conscious emotions and performance estimates were measured prior to and following the task. All analyses examined GN, VN, and self-esteem, in order to evaluate the importance of each self-appraisal in predicting reactivity. Based on the reviewed literature, it was predicted that children high in GN would have higher externalising reactions and inflated performance estimates following ego-threat, and that children
high in VN would have higher internalising and externalising reactions following ego-threat. Unlike GN, VN is associated with negative self-feelings following threat, thus no prediction was made about the relation between VN and inflated performance estimates.

**Method**

**Participants.** Participants were 124 children (52% female), aged 8-12 years (\(M = 10.10, SD = 1.53\)) and one of their parents (88% female; \(M = 42.06, SD = 6.08\)). The parent-reported ethnicity of the sample was 61.3% Australian, 17% European, 12.1% Asian, 8.9%, 4.0% North American, 1.6% South American, 1.6% New Zealand, 1.6% Aboriginal, 0.8% African. Parent-reported approximate family yearly incomes ranged from less than $20,000 to over $200,000, with a cluster (24.2%) between $100,000 and $150,000, which aligns with the Australian mean household income (Australian Bureau of Statistics, 2017).

Advertisements were emailed to members of a local science centre, and displayed in school newsletters, libraries, and shopping centre notice boards, and on local Facebook parenting pages. Participants who saw the advertisement for the study and were interested in participating scheduled an appointment. Ethics approval for the study was obtained the University of Western Australia Human Research Ethics Office (RA/4/1/7064).

**Measures.** Internal consistencies, means, and standard deviations for all variables are reported in Table 6.1.

**Narcissism Scale for Children (NSC).** Child GN and VN were measured using the 15-item self-report NSC. The NSC has two subscales (NSC-GN and NSC-VN) which are supported by factor analytic methods, and have demonstrated good evidence for internal reliability, construct, concurrent, and content validity (Derry et al., 2018). Children rate statements (e.g., ‘I
think I deserve to be treated better;” from 1 = Not at all like me to 4 = Really like me). Responses were averaged.

Table 6.1

**Internal Consistency (α), Means, Standard Deviation and Correlations among Main Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mazes</th>
<th>GSW</th>
<th>NSC-GN</th>
<th>NSC-VN</th>
<th>α</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSW (self-esteem)</td>
<td>.05</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.76</td>
<td>3.13</td>
<td>0.60</td>
</tr>
<tr>
<td>NSC-GN</td>
<td>.12</td>
<td>-.01</td>
<td>-</td>
<td></td>
<td>.70</td>
<td>2.21</td>
<td>0.53</td>
</tr>
<tr>
<td>NSC-VN</td>
<td>-.03</td>
<td>-.35**</td>
<td>.40**</td>
<td>-</td>
<td>.71</td>
<td>2.17</td>
<td>0.53</td>
</tr>
<tr>
<td>SHS-hostility-T1</td>
<td>.24**</td>
<td>-.11</td>
<td>.03</td>
<td>.31**</td>
<td>.77</td>
<td>1.91</td>
<td>0.91</td>
</tr>
<tr>
<td>SHS-hostility-T2</td>
<td>.06</td>
<td>-.21*</td>
<td>.20*</td>
<td>.48**</td>
<td>.81</td>
<td>1.86</td>
<td>0.89</td>
</tr>
<tr>
<td>SHS-anger-T1</td>
<td>.15</td>
<td>-.21*</td>
<td>.10</td>
<td>.29**</td>
<td>.80</td>
<td>1.70</td>
<td>0.83</td>
</tr>
<tr>
<td>SHS-anger-T2</td>
<td>.07</td>
<td>-.21*</td>
<td>.08</td>
<td>.42**</td>
<td>.79</td>
<td>1.76</td>
<td>0.81</td>
</tr>
<tr>
<td>SHS-positive-T1</td>
<td>-.08</td>
<td>.02</td>
<td>.06</td>
<td>-.03</td>
<td>.56</td>
<td>3.55</td>
<td>0.53</td>
</tr>
<tr>
<td>SHS-positive-T2</td>
<td>-.04</td>
<td>.02</td>
<td>-.10</td>
<td>-.10</td>
<td>.79</td>
<td>3.58</td>
<td>0.71</td>
</tr>
<tr>
<td>SSS-shame-T1</td>
<td>.14</td>
<td>-.24**</td>
<td>.02</td>
<td>.32**</td>
<td>.80</td>
<td>1.77</td>
<td>0.91</td>
</tr>
<tr>
<td>SSS-shame-T2</td>
<td>.20*</td>
<td>-.30**</td>
<td>.11</td>
<td>.49**</td>
<td>.65</td>
<td>1.89</td>
<td>0.82</td>
</tr>
<tr>
<td>SSS-guilt-T1</td>
<td>.09</td>
<td>-.20*</td>
<td>.00</td>
<td>.31**</td>
<td>.81</td>
<td>2.08</td>
<td>1.07</td>
</tr>
<tr>
<td>SSS-guilt-T2</td>
<td>.15</td>
<td>-.21*</td>
<td>-.02</td>
<td>.28**</td>
<td>.68</td>
<td>2.40</td>
<td>0.99</td>
</tr>
<tr>
<td>Anxiety-T1</td>
<td>.11</td>
<td>-.13</td>
<td>.08</td>
<td>.24**</td>
<td>-</td>
<td>2.18</td>
<td>2.36</td>
</tr>
<tr>
<td>Anxiety-T2</td>
<td>.02</td>
<td>-.15</td>
<td>.17</td>
<td>.35**</td>
<td>-</td>
<td>3.97</td>
<td>2.64</td>
</tr>
<tr>
<td>PE-social-T1</td>
<td>.13</td>
<td>.30**</td>
<td>.13</td>
<td>-.20*</td>
<td>.83</td>
<td>74.53</td>
<td>18.73</td>
</tr>
<tr>
<td>PE-social-T2</td>
<td>.10</td>
<td>.21**</td>
<td>.00</td>
<td>-.23**</td>
<td>.81</td>
<td>73.60</td>
<td>21.55</td>
</tr>
<tr>
<td>PE-performance-T1</td>
<td>.01</td>
<td>.11</td>
<td>-.12</td>
<td>-.18*</td>
<td>.83</td>
<td>67.56</td>
<td>20.48</td>
</tr>
<tr>
<td>PE-performance-T2</td>
<td>.30**</td>
<td>.15</td>
<td>.21*</td>
<td>-.05</td>
<td>.76</td>
<td>58.01</td>
<td>20.60</td>
</tr>
</tbody>
</table>

*Note. NSC = Narcissism Scale for Children; GN = Grandiose Narcissism; VN = Vulnerable Narcissism; SHS = State Hostility Scale; SSS = State Shame Scale; PE = Performance Estimates.*

* p < .05. ** p < .001.

**Global Self-Worth Scale (GSW).** Child self-esteem was measured using the 6-item child-report GSW from the Self-Perception Profile for Children (Harter, 1985). The GSW is a widely used measure of self-esteem in children and has demonstrated high internal consistency, test
retest reliability, and validity over multiple decades. Items are forced-choice and rated along a 4-point scale with two possible responses (Really true for me; Sort of true for me) for each statement (e.g., ‘Some kids are very happy being the way they are’ or ‘Other kids wish they were different’). Responses were averaged.

**State Hostility Scale (SHS).** To measure children’s propensity for reactive aggression (i.e., hostility, anger, and negativity) they completed the SHS before and after the challenge task (Anderson, Deuser, & DeNeve, 1995). The SHS has demonstrated good internal reliability in adults and was adapted in this study to make it appropriate for use with children. Items were reworded if they did not meet the minimum score for 8 year-old readability as determined by the Flesch-Kincaid Grade Level test. Fit indices for the 15-item 3-factor scale were acceptable (CFI = .96, RMSEA = .06). Children indicated the extent to which they identify with various adjectives (e.g., anger = I feel… like yelling at somebody/angry/mean/cruel/about to explode; positivity = I feel… nice/kind/friendly/like being helpful/cooperative; hostility = I feel… annoyed/furious/frustrated/bothered/ like swearing; from 1 = Very false to 5 = Very true). Responses were averaged.

**State Shame Scale (SSS).** To measure children’s propensity for reactive shame, they completed the SSS before and after the challenge task (Marschall, Sanftner, & Tangney, 1994). The SSS has demonstrated good reliability and validity in adults and has moderate to strong correlations with measures assessing dispositional or proneness to shame (Tangney & Dearing, 2003). All items met the minimum score for readability. Fit indices for the three factor scale were acceptable (CFI = .98, RMSEA = .02) and the factors replicated the original scale (i.e., shame, guilt, and pride), however the pride scale was not used in subsequent analyses due to unacceptable internal consistencies pretest and posttest (α = .57, .33). Children indicated the
extent to which they currently feel various emotions (e.g., ‘I feel small,’ from 1 = *Very false* to 5 = *Very true*). Responses were averaged.

**Children’s Anxiety Meter-State (CAMS).** To measure their state anxiety, children completed the CAMS before and after the challenge task (Ersig, Kleiber, McCarthy, & Hanrahan, 2013). The CAMS is a single-item vertical analogue scale in which a child colours a thermometer image to indicate ‘how much nervousness or worry’ they currently feel from 0-10. The CAMS has shown good construct validity in children as young as 7-years old.

**Performance Estimates (PE).** To measure each child’s perceptions of their social and task performance prior to and following the maze task, they answered questions modelled after those used in a maze task by Ohan and Johnston (2002). Three questions were used to develop a pretest (posttest) social performance scale: (a) How much do you think the researcher will like you (liked you)? (b) How much do you think the researcher will like working with you (liked working with you)? (c) How helpful do you think the researcher will be (was the researcher)? Three questions were used to develop a pretest (posttest) task performance scale: (a) How well do you think you will do (you did) today overall? (b) How well do you think you will do (you did) on the maze task? (c) How well do you think other kids will do (did) on the maze task? All questions were rated on a scale from 0-100. Responses were averaged.

**Procedure:** On the day of the experiment, children completed informed assent and parents completed informed consent forms upon arrival. Following this, children completed the NSC, GSW, SHS, SSS, CAMS, and PE while the examiner sat with the child’s parent across the room. Participants were then told that they would be timed while they completed a maze task. Children were instructed that the mazes might be challenging but to try their best to complete as many as they could in 5 minutes. First, they were given 1 minute to attempt a practise maze
(difficulty level recommended for children ages 7 to 9 years-old) to ensure they understood the task. Eighteen children (12%) did not complete the practice maze, but confirmed that they understood the task and were ready to continue. Following the practice exercise, children were given a stack of 20 mazes (difficulty level recommended for children ages 9 to 12 years old) and timed for 5 minutes. When 5 minutes were over, the examiner announced, ‘time is up, the maze task is over, now you have a few more questionnaires to complete and then we are all finished.’ The child then completed the SHS, SSS, CAMS, and PE again while the examiner waited with the child’s parent across the room.

The maze task was designed to be a brief and mild ego-threat, evoking feelings of frustration that would be typical for children in a regular school day. The examiner sat across from them with a timer and observed them for the 5 minutes to add pressure (Baumeister & Showers, 1986). It was concluded that the task was sufficiently difficult to evoke feelings of frustration, 53% of children did not complete a maze in the timed 5 minutes, 45% completed one maze, 7% completed two mazes. There was a significant difference in task performance estimates pre-test (T1) and post-test (T2); \( t(122) = 5.21, p < .001 \). This indicates that children expected to perform better than they did and demonstrates the ego-relevance of the task (Baumeister & Showers, 1986). Following the mazes and ratings, the researcher thanked each child for participating, reminded children about how the mazes were designed to be challenging, and answered any questions that they had.

**Results.**

**Preliminary Analyses.** Prior to running the analyses, assumptions were checked and the data were screened for outliers. In this sample, SHS-hostility, SHS-anger, SSS-shame, SSS-guilt, and CAMS-anxiety were positively skewed, with a tendency for children to report lower levels
of these variables (skewness = .95 to 1.36). PE-social and PE-performance were negatively skewed, with a tendency for children to report higher levels of these variables (skewness = -.85 to -1.09). Blom’s transformation was utilised to create scores that were within normal limits.

It was then examined whether children’s age, sex, family income, or the time of testing were related to any of the main study variables. SSS-guilt-T1 was negatively correlated with child age ($r = -.22, p < .05$), PE-task-T1 was negatively correlated with gender, such that boys had higher task performance estimates than girls ($r = -.20, p < .05$), and SHS-hostility-T1 was negatively correlated with income ($r = -.21, p < .05$).

In Table 6.1, Pearson’s bivariate correlations between main study variables are reported. NSC-VN was positively correlated with self-esteem, SHS-hostility-T1 and -T2, SHS-anger-T1 and -T2, SSS-shame-T1 and -T2, SSS-guilt-T1 and -T2, and CAMS-anxiety-T1 and -T2, and negatively correlated with PE-social-T1 and -T2, and PE-task-T1. NSC-GN has positive correlations with SHS-hostility-T2 and PE-task-T2. Self-esteem was negatively correlated with SHS-hostility-T1, SHS-anger-T1 and -T2, SSS-shame-T1 and -T2, and SSS-guilt-T1 and -T2, and was positively correlated with PE-social-T1 and -T2. PE-task-T2 was positively correlated with number of mazes completed.

**Regression Analyses.** Hierarchical regression analyses were conducted to determine the main effects of self-esteem, NSC-GN, and NSC-VN on emotional reactivity and performance estimates. Analyses were conducted for each emotion separately (i.e., anger, hostility, shame, guilt, anxiety) and then for performance estimates (social and task). A model for SHS-positivity was not conducted as none of the predictor variables (i.e., self-esteem, GN, or VN) were significantly correlated with SHS-positivity. To measure reactivity to the challenge task for the remaining predictor variables, the post-test (T2) variable was used as the outcome variable. The
pre-test (T1) variable, number of mazes completed, and any significant covariates from the bivariate analyses were entered at step 1, followed by the main effect variables at stage 2. Significant models for emotional reactivity with non-significant predictors removed are shown in Table 6.2. Significant models for performance estimates are shown in Table 6.3

**Model 1. SHS-hostility.** The model was significant, with a significant main effect of pre-test hostility and NSC-VN in predicting post-test SHS-hostility. These main effects indicate that higher participant hostility ratings prior to the challenge task and higher VN predicted increased hostility following a challenging task. No main effect of income, mazes completed, GSW or NSC-GN were found. This indicates that when the variance attributed to baseline hostility and VN were controlled, family income, self-esteem, and GN did not contribute to predicting reactive hostility in children.

**Model 2. SHS-anger.** The model was significant, with a significant main effect of pre-test anger ratings and NSC-VN in predicting post-test SHS-anger. These main effects indicate that higher participant anger prior to the challenge task and higher VN predicted increased anger following a challenging task. No main effect of mazes completed, GSW, or NSC-GN were found. This indicates that when the variance attributed to baseline anger and VN was controlled, self-esteem and GN did not contribute to predicting reactive anger in children.

**Model 3. SSS-shame.** The model was significant, with a significant main effect of pre-test shame ratings and NSC-VN in predicting post-test SSS-shame. These main effects indicate that higher participant shame prior to the challenge task, and higher VN predicted increased shame following a challenging task. No main effect of mazes completed, GSW, or NSC-GN were found. This indicates that when the variance attributed to baseline shame and VN was controlled, self-esteem and GN did not contribute to predicting reactive shamefulness.
Table 6.2

Summary of Regression Analysis for Child Narcissism and Self-Esteem predicting Reactive Emotions in Children

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable B</td>
<td>SE B</td>
<td>β</td>
<td>Variable B</td>
<td>SE B</td>
</tr>
<tr>
<td>T1</td>
<td>0.44</td>
<td>.07</td>
<td>.45***</td>
<td>T1</td>
</tr>
<tr>
<td>NSC-VN</td>
<td>0.59</td>
<td>.12</td>
<td>.35***</td>
<td>NSC-VN</td>
</tr>
<tr>
<td>Step1 R²</td>
<td>.30</td>
<td></td>
<td>Step1 R²</td>
<td>.34</td>
</tr>
<tr>
<td>FA in R²</td>
<td>52.81**</td>
<td></td>
<td>FA in R²</td>
<td>60.33**</td>
</tr>
<tr>
<td>Step2 R²</td>
<td>.42</td>
<td></td>
<td>Step2 R²</td>
<td>.40</td>
</tr>
<tr>
<td>FA in R²</td>
<td>23.19**</td>
<td></td>
<td>FA in R²</td>
<td>13.59**</td>
</tr>
</tbody>
</table>

Note. NSC = Narcissism Scale for Children; VN = Vulnerable Narcissism; SHS = State Hostility Scale; SSS = State Shame Scale.
*p < .05. **p < .001.

Table 6.3


<table>
<thead>
<tr>
<th>Model 4: PE-social-T2</th>
<th>Model 5: PE-task-T2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable B</td>
<td>SE B</td>
</tr>
<tr>
<td>T1</td>
<td>0.87</td>
</tr>
<tr>
<td>NSC-GN</td>
<td>10.16</td>
</tr>
<tr>
<td>FA in R²</td>
<td>29.91**</td>
</tr>
<tr>
<td>Total R²</td>
<td>.56</td>
</tr>
<tr>
<td>FA in R²</td>
<td>158.84**</td>
</tr>
</tbody>
</table>

Note. NSC = Narcissism Scale for Children; GN = Grandiose Narcissism; PE = Performance Estimates.
*p < .05. **p < .001.
Model 4. SSS-guilt. The model was significant, with a significant main effect of pre-test guilt ratings in predicting post-test SSS-guilt. These main effects indicate that higher participant guilt prior to the challenge task predicted increased guilt following a challenging task. No main effect of age, mazes completed, GSW, NSC-GN, or NSC-VN were found. This indicates that when the variance attributed to baseline guilt was controlled, child age, self-esteem, GN, and VN did not contribute to predicting reactive guilt in children.

Model 5. CAMS-anxiety. The model was significant, with a significant main effect of pre-test anxiety ratings and NSC-VN in predicting post-test CAMS-anxiety. These main effects indicate that higher participant anxiety prior to the challenge task and higher VN are associated with increased anxiety following a challenging task. No main effect of mazes completed, GSW, or NSC-GN were found. This indicates that when the variance attributed to baseline anxiety and VN were controlled, self-esteem and GN did not contribute to predicting reactive anxiety in children.

Model 6. PE-social. The model was significant, with a significant main effect of pre-test social estimates in predicting post-test social estimates. These main effects indicate that higher perception of social performance prior to the challenge task was associated with increased perception of social performance following the task. No main effect of mazes completed, GSW, NSC-GN, or NSC-VN were found. This indicates that when the variance attributed to baseline social estimates was controlled, child age, self-esteem, GN, and VN did not contribute to predicting reactive social performance estimates in children.

Model 7. PE-task. The model was significant, with a significant main effect of mazes completed, pre-test task performance estimates and NSC-GN in predicting post-test task performance estimates. These main effects indicate that higher perception of one’s ability prior
to the challenging task and higher GN were associated with increased perceptions of one’s ability following a challenging task. No main effect of gender, GSW, or NSC-VN were found. This indicates that when the variance attributed to mazes completed, baseline performance estimates, and GN were controlled, gender, self-esteem, and VN no longer contribute to predicting reactive task performance estimates.

**Discussion**

It is widely held that how children think about themselves determines how they react to the challenges they face in their daily lives (Brummelman, Thomaes, de Castro, Overbeek, & Bushman, 2014; Harter, 2006). For the past three decades, the self-esteem movement in schools has operated under the assumption that boosting children’s self-esteem will cause emotional, interpersonal, and academic success (Baumeister, Campbell, Krueger, & Vohs, 2003). However, researchers have questioned this assumption and voiced concerns that boosting self-esteem may instead promote narcissism and undesirable consequences such as emotional dysregulation and decreased challenge seeking (Baumeister et al., 2003; Baumeister et al., 1993; Brummelman, Nelemans, Thomaes, & Orobio de Castro, 2017; Brummelman et al., 2014). Such possible consequences are concerning, as they ultimately serve to limit a child’s potential for success. Previous child narcissism research has distinguished between important variations in children’s positive self-appraisals, delineating high self-esteem from narcissism (Bushman & Baumeister, 1998; Thomaes et al., 2008), and more recently, GN from VN, with each type of self-appraisal being associated with different social, emotional, and behavioural outcomes in children (Derry et al., 2018). In the present study, we investigated whether children who report higher levels of GN or VN experience adaptive or maladaptive responses to the experience of frustration on a challenging maze task. VN was associated with significant emotional reactivity, even once
shared variance with self-esteem and GN was accounted for. On the other hand, GN was not significantly associated with emotional reactivity, but was associated with higher task performance estimates following challenge.

The current findings identify VN as a problematic personality trait in children that is associated with substantial emotional distress in the face of challenge. Prior to commencing the task, children high in VN reported elevated levels of negative emotions including hostility, anger, shame, and anxiety, indicating that even anticipating a challenge was stressful for them. Further, after 5 minutes of challenging mazes, VN predicted elevations on all self-reported negative emotions, even after controlling for initial emotion reports before the task began. Many studies on narcissism have found reactivity to ego-threat only following social rejection, negative feedback, or upward social comparison (Barry, Chaplin, & Grafeman, 2006; Bushman & Baumeister, 1998; Ferriday, Vartanian, & Mandel, 2011; Twenge & Campbell, 2003). Yet in this study, reactivity was found in a task with ambiguous performance standards, with no further suggestion of participant inadequacy or rejection; indicating that the shame was internally driven. This is consistent with a description by Morf and Rhodewalt (2001), “narcissists behave as if they live in a precarious environment with threat lurking around every corner.” The notable hypervigilance to ego-threat and underlying shame in VN aligns with descriptions of narcissistic superiority as a mask against deep seated feelings of inferiority (Kernberg, 1975; Kohut, 1972; Willock, 1986).

The narcissistic rage hypothesis illuminates how the unique combination of shameful and hostile emotions experienced by children high in VN in this experiment may, if intensified (e.g., by more overt, public, and/or intense threat) lead to outbursts of physical aggression or antisocial behaviour (Twenge & Campbell, 2003). Although narcissistic rage has long been discussed in
clinical theory, until recently it was absent from the child literature, as were themes of VN. A recent meta-analysis found VN to predict anger, hostility, and shame in adults, and found these emotions to be the key factors contributing to both reactive and displaced aggression, as well as depressive responses (Krizan & Johar, 2015). Consistent with the findings in adults, the current results showed VN intensified the same emotions in children in response to a brief and mild challenge. Shame, in particular, has long been implicated as being the affective core of narcissism (Broucek, 1982). Although early research on narcissism found little support for this supposition, due to its focus on GN (Gramzow & Tangney, 1992), literature that separates GN from VN has brought to light how shame divides the two narcissism types (Krizan & Herlache, 2017; Pincus et al., 2009). Because of the functional and motivational focus on hiding feelings of inadequacy, VN may also be linked to a self-perpetuating shame-rage spiral, due to the inability to meet introjected and inflated standards of perfection (Willock, 1986).

These findings also carry implications for understanding how self-esteem relates to aggression. Traditional theories have tied low self-esteem to aggressive behaviours (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Harter, 2006). Children high in VN may appear to have both low and high self-esteem in that they feel low self-worth alongside entitled self-importance. While research on VN in children is in its infancy, our findings extend on research by Diamantopoulou et al. (2008), which found that children with concurrent low self-worth and inflated self-evaluations scored higher in teacher-rated aggressive behaviour and peer-rated physical aggression. It appears that low self-esteem in combination with narcissistically inflated self-appraisal may be an important risk factor for not only externalising, but also internalising, problems in children. Unsurprisingly, NSC-VN was also related to parent-reports of conduct problems and emotional symptoms in children (Derry et al., 2018). These risk-factors are
noteworthy given findings that parents and other adults are most likely to attempt to ‘boost’ self-esteem when children have low self-esteem, a tactic that can backfire by reducing challenge-seeking (Brummelman et al., 2014) and predicting lower self-esteem over time (Brummelman et al., 2017).

In the current study, child GN was not characterised by feelings of shame or anger in the face of challenge. No support was found for the threatened egotism hypothesis that GN under ego-threat would lead to the highest levels of aggressive behaviour (Bushman & Baumeister, 1998; Thomaes et al., 2011). One explanation for this finding is shared variance. GN and VN are moderately correlated in children (Derry et al., 2018), while in adults they generally have small to negligible correlations (Miller et al., 2011). Although early studies on children found that GN was related to behavioural problems, the shared variance with VN may account for this effect, such that after accounting for VN, these relationships may be reduced or annulled (Derry et al., 2018). Another explanation may be the mild ego-threat and measures of aggression used in this study. Past research on GN in adults and children have used social comparison or negative feedback to evoke aggressive reactions (Ferriday et al., 2011), or found GN to be related to proactive and antisocial forms of aggressive behaviour, rather than reactive and emotionally-based aggression (Reidy, Foster, & Zeichner, 2010; Reidy, Zeichner, Foster, & Martinez, 2008). The current research did not investigate these contingencies.

Child GN was associated with increased performance estimates following a challenging task. This is consistent with adult literature that links GN with feelings of invulnerability (Aalsma et al., 2006), enhancing self-presentation tactics (Hart et al., 2017; Paulhus, 1998), and increased willingness to perform tasks that enable self-enhancement (Nevicka et al., 2016). GN was not related to social performance estimates, which provides evidence towards the extended
agency model of narcissism, in that the focus of GN self-enhancement and -regulation is on personal, and not communal or relational, benefits (Campbell & Foster, 2007). This is supported by findings that GN is inversely related to prosocial behaviour in children (Derry et al., 2017), and reactivity following interpersonal rejection in adults (Besser & Priel, 2010). In the current study, VN was linked to low social performance estimates, and this relationship was not exacerbated by the task. This is consistent with research that associates VN with interpersonal sensitivity, yet the absence of explicit rejection in the maze task may have precluded reactivity (Besser & Priel, 2010).

Although the literature on the differences between GN and VN in adults is now thriving (Miller et al., 2017), little is known about the differences between GN and VN in children. This study is the first to explore how children with elevations of each narcissism dimension react to challenge. Results support the importance of considering both GN and VN, and confirm that whether narcissism is adaptive prior to adulthood depends on whether the dominant presentation is grandiose or vulnerable. Initial findings that separate GN from its shared variance with VN in children illustrate that GN is somewhat adaptive in children (Derry et al., 2018). GN is unrelated to self-esteem and does not share the benefits associated with high self-esteem, however, it also does not share the more concerning emotional, behavioural, and reactive costs of VN in children (Derry et al., 2017). In line with the conceptualisation of GN as approach-oriented and supported by positive feedback loops, elevated GN in the current study was unrelated to emotional reactivity but linked to increased task performance estimates following the challenge task. Perhaps if inflated self-importance is not paired with low self-worth, then children may be unperturbed by challenges, reacting with increased motivation to succeed in future tasks and an overly optimistic view of their performance in past tasks. Future investigation is needed.
The current findings are considered in the context of their limitations. First, this research addressed anger and hostility, which are factors of aggression associated with the narcissistic rage hypothesis. While the items included identification with more overt forms of aggression (e.g., I feel like I’m about to explode, I feel like yelling at someone) the SHS does not include scales of verbal or physical aggression and does not constitute a behavioural measure of aggression. The findings suggest that the negative emotions reported by children align with descriptions of narcissistic rage that is thought to fuel direct aggression and extreme rage responses in adults (Krizan & Johar, 2015), but these outcomes were not actually measured in this study. Secondly, GN aggression in adults is often evoked under specific conditions, and may be interpreted as a self-enhancing or self-restoring strategy that constitutes instrumental aggression (Reidy et al., 2010; Reidy et al., 2008). The ego-threat utilised here was minor and brief, attesting to the hypervigilance of VN reactivity, but perhaps not enough provocation to evoke GN emotional responses (Ferriday et al., 2011). Future research should look at different ego-threats, such as social comparison, rejection, or negative feedback, to determine the reactions of children high in GN and VN to exacerbated threat conditions. Finally, these analyses had adequate power to detect significant effects and are comparable to similarly themed adult research (e.g., Krizan & Johar, 2015). However, replication studies with larger population-based samples are needed to ensure the stability of the results reported.

Our findings also identify novel research directions. Although experimental paradigms that manipulate physical aggression or heightened shame conditions cannot be justified in child research, naturalistic or observational methods can be used to investigate the real world impact of narcissism in children. Further, an important question for future studies is how VN reactivity to challenge affects children’s academic performance and resilience. Researchers have found that
emotional distress in children is related to competence underestimation and reduced self-control (Pomerantz & Rudolph, 2003; Tangney, Baumeister, & Boone, 2004). Competence estimates and self-control have both been identified as essential to motivation, adjustment, and other measures of success (Ryan & Deci, 2000; Tangney et al., 2004). Thus, VN in children may influence school adjustment and performance.

Late childhood is a critical stage of development, when social, emotional, and academic challenges are abundant, but also when self-concept and personality are still emerging and are malleable to change. These findings illustrate the potential dangers of inflated self-appraisals in children, particularly in those with low self-esteem. In some cases, attempting to boost low self-esteem in children may not raise self-esteem, but rather, foster a sense of superiority and entitlement that characterises narcissism and elicits a fear of failure and challenge-seeking (Brummelman et al., 2017; Brummelman et al., 2014). These findings stand in direct contradiction to the premise of the self-esteem movement that has influenced education policy across the western world (Baumeister et al., 2003). To achieve eventual success, children (and adults) need to have the courage to fail, as illustrated by the opening quote. Acknowledging both VN and GN dimensions has important implications for understanding reactivity to challenges, shame-fuelled externalising and internalising problems in children, and the boomerang effect that may result from encouraging self-inflation in children with low self-esteem.
References


Chapter 7. General Discussion
Chapter 7

Over the last decade, the narcissism literature has reflected a growing consensus that two basic expressions of narcissism exist: *Grandiose Narcissism* (GN) and *Vulnerable Narcissism* (VN; Cain et al., 2008; Krizan & Herlache, 2017; Miller et al., 2017). It is commonly assumed that both GN and VN originate in childhood and have separate etiologies, although this is a matter of contention (Brummelman et al., 2015; Dickinson & Pincus, 2003; Miller et al., 2017). Despite evidence suggesting that both expressions of narcissism may exist prior to adulthood, the disparity between the conceptualisation and measurement of narcissism in adult and child research is largely ignored (Kealy et al., 2015). Prior to the series of studies presented in the current thesis, the child literature had not acknowledged the GN/VN distinction, thus, existing research on ‘childhood narcissism’ has primarily addressed GN. This is problematic for two main reasons: first, a narrowed perspective can lead to premature or erroneous conclusions as to the origins of narcissism, and second, it limits our understanding of the consequences of narcissism prior to adulthood. In order to grow and unify the field, it is imperative that researchers acknowledge the distinction between GN and VN and work together to clarify how these two dimensions are related and distinct across the lifespan (Campbell & Miller, 2011).

This thesis sought to increase our understanding of GN and VN by conducting a theory-based, empirical investigation of GN and VN in children, adolescents, and adults. The first aim of this thesis was to develop reliable and valid measures of trait narcissism that distinguish these narcissism dimensions in adults, adolescents, and children, and reflect our understanding of their diverse nomological networks. The second aim was to determine if GN and VN in children are associated with different parenting styles, child temperaments, and social, emotional, and
behavioural outcomes. To address these aims, eleven studies were conducted using questionnaire and experimental methodologies in adult, undergraduate, adolescent, and child samples. The findings of these studies complement the existing narcissism discourse by integrating adult and child narcissism research, consolidating the measurement of narcissism within GN and VN higher-order factors, and illustrating how subtle differences in self-appraisals can have a considerable impact on optimal functioning, impairment, and distress.

This final chapter presents a summary of the key findings and strengths of each study. This is followed by a discussion of the implications of these findings in the context of existing theory and research, as well as the limitations of these findings and directions for future research. Overall, this chapter highlights the necessity of distinguishing between GN and VN to determine if and how trait narcissism is beneficial or deleterious to the self and society. The research findings discussed in this chapter make a unique and important contribution to the existing literature by clarifying the distinction between grandiose and vulnerable narcissism as well as their common core, demonstrating that this distinction is meaningful prior to adulthood, and enabling future research on the development and maintenance of narcissism across the lifespan.

**Key Findings**

The consolidation of narcissism theory and research has been hindered by the persistent use of disparate labels and classifications (e.g., adaptive/maladaptive, pathological/healthy), despite several calls for common nomenclature (Cain et al., 2008; Campbell & Miller, 2011; Krizan & Herlache, 2017). The inconsistent conceptualisation and measurement of narcissism across and within disciplines is a barrier to understanding the construct and has exacerbated the divide between expanding clinical, social/personality, and developmental research on narcissism. To bridge this divide, this thesis used research from a wide array of perspectives to further our
understanding of the bifurcated nature of narcissism. In this thesis, narcissism was first examined in adults to provide a foundation for examining narcissism in children.

*Narcissism in Adults (Chapters 2 and 3)*

Chapter 2 examined the factor structure of narcissism items taken from a variety of adult narcissism scales. In particular, the studies in this chapter develop and provide psychometric evidence for a measure of trait narcissism in adults that clearly demarcates GN and VN. To date, the most prolific measures of narcissism primarily assess either GN (e.g., NPI and NARQ) or VN (e.g., HNS and PNI), but not both. Consequently, researchers often use two separately developed scales in order to create a comprehensive assessment of narcissism (e.g., Barry & Kauten, 2014; Jauk et al., 2015), with the result being that the factor structure and appropriate loading of items between the two scales is unknown. In sum, a new measure of narcissism was necessary because existing measures were not sufficiently representative of GN and VN in nonclinical populations.

Consistent with a bifurcated model of narcissism, a four-factor structure with two high-order GN and VN factors emerged in two separate factor analyses, one conducted on an undergraduate sample (Study 1) and another on a community-based adult sample (Study 2), attesting to the generalisability of the results. The resultant measure, the Narcissism Scale (NS), clearly represents the distinction between the two narcissism dimensions, as shown by the non-significant correlation between NS-GN and NS-VN. These higher-order factors were each divided into intrapersonal and interpersonal lower-order factors, allowing insight into the expression of and functional diversity between and within the two narcissism dimensions.

Narcissism can be conceptually defined by intrapersonal or interpersonal characteristics. Specifically, this is evident in the definitions of core narcissism as ‘entitled self-importance’ or
‘interpersonal antagonism’ respectively (Krizan & Herlache, 2017; Miller et al., 2017). The intrapersonal/interpersonal distinction also illuminates the confusing mix of characteristics often described as the *narcissism paradox* (Morf & Rhodewalt, 2001). For example, in Chapter 2, intrapersonal NS-GN accounted for GN’s adaptive features (e.g., positive correlations with self-esteem, optimism, well-being), whereas interpersonal NS-GN accounted for GN’s maladaptive features (e.g., positive correlations with entitlement, antagonism, aggression). This confirms existing research that describes GN as intrapersonally adaptive but interpersonally maladaptive (Back et al., 2013; Brown, Budzek, & Tamborski, 2009, Campbell, Rudich, & Sedikides, 2002; Emmons, 1984; Paulhus, 1998). Moreover, this distinction reveals how over-representing one component of GN will lead to erroneous conclusions regarding its effect on adjustment.

Like GN, the intrapersonal and interpersonal components of VN also showed a different pattern of correlations. However, both aspects of VN showed maladaptive relations; specifically, interpersonal NS-VN accounted for associations with introversion, entitlement, and physical aggression, while intrapersonal NS-VN accounted for associations with neuroticism, anger, avoidance, and the need for other-approval. Thus, interpersonal and intrapersonal VN both represent dysfunction, but in different ways (i.e., functional impairment versus distress). The NS clearly parses and accurately represents each factor of narcissism and illustrates how researchers can consolidate some of the diverse terminology used to describe narcissism (e.g., adaptive and maladaptive narcissism) within a framework of GN and VN. This is consistent with broad theory and findings on GN and VN in past work (Dickinson & Pincus, 2008; Given-Wilson, McIlwain, & Warburton, 2011; Wink, 1991; Zeigler-Hill, Clark, & Pickard).

Chapter 3 examined the factor structure resulting from analysis of the higher-order factors of three narcissism scales (NS, NPI, & PNI). NS-VN and PNI-VN loaded onto the same
narcissism factor and showed similar patterns of associations with criterion variables, and NS-GN and NPI loaded onto the same factor and showed similar patterns of associations. When the factor structure of the lower-order narcissism scales was examined, a four-factor structure of narcissism again emerged, with higher-order GN and VN factors each divided into intrapersonal and interpersonal lower-order factors. This supports the factor analytic findings of Chapter 2.

Building on the findings of Chapter 2, Chapter 3 clearly demarcated scales of GN/VN and added important information to our understanding of the core and peripheral personality features of narcissism. GN and VN scales have divergent associations with peripheral features of narcissism (GN was associated with high extraversion and low emotionality, VN with low extraversion and high emotionality), but convergent associations with core narcissism features (higher levels of narcissism on all scales were associated with lower honesty-humility [HH] and, to a lesser extent, lower agreeableness). Furthermore, self-esteem and self-compassion were positively associated with HH and agreeableness, thus core narcissism features also represented the difference between narcissism and adaptive self-appraisals. Although both dimensions of narcissism share a common core, GN and VN scales are not correlated due to substantial inter-individual differences in their personality configurations. These nuances in the expression of narcissism dimensions were further elucidated by the facet-level scales, which defined GN as a self-satisfied, bold, and pretentious expression of narcissism, and VN as self-deprecating, inhibited, and insincere expression of narcissism.

This agrees with previous research using the Five Factor Model of personality (FFM) that suggests that low agreeableness is the central feature of narcissism (Miller et al., 2017). However, in using the six-factor HEXACO, Chapter 3 builds on previous knowledge by demonstrating that narcissism scales had more consistent relations with the HH factor (Study 2).
and facets (Study 3) than the agreeableness factor and facets. In sum, HH was the defining core feature of narcissism identified in this chapter. These studies also determined PNI-GN to be a measure of core narcissism, rather than GN specifically. PNI-GN cross-loaded on both GN and VN (Study 1) and was correlated with core narcissism features but not peripheral features of narcissism (Study 2). Therefore, this study provides clarity as to how mislabeled factors can be integrated into GN/VN nomenclature to draw clear conclusions regarding narcissism (e.g., Bresin & Gordon, 2011; Longobardi, 2016).

Chapters 2 and 3 offer a compelling case for a bifurcated structure of GN and VN within a broader core framework of narcissism in adults. The divergent temperaments (Chapter 2) and personality features (Chapter 3) evident in GN and VN provide some suggestion that the differences between narcissism expressions may be developmentally based. These studies provided a foundation and an impetus for the investigation of both GN and VN in children.

**Narcissism in Children (Chapters 4, 5, and 6)**

To date, the empirical literature has not acknowledged the GN/VN distinction prior to adulthood. Given the focus on GN in childhood, there is little understanding and no measure of VN in children. Chapter 4 developed and provided psychometric evidence for a measure of GN and VN that was downward extended from the adult NS to be developmentally appropriate for children. Factor analyses confirmed that narcissism prior to adulthood is also comprised of GN and VN dimensions, with items loading onto the same factor scales in children as in the adult studies (Chapters 2 and 3). Preliminary evidence supports the reliability and validity of the Narcissism Scale for Children (NSC) in children (Chapter 4: Studies 1, 2, 3) and adolescents (Chapter 4: Study 4).
Although intrapersonal and interpersonal GN/VN factors were not evident in children, the GN and VN factors were each equally weighted with intrapersonal and interpersonal items. The overarching themes evident in the item content of each factor were also consistent with the adult literature. Specifically, NSC-VN items capture expressions of entitlement (Krizan & Herlache, 2017), uniqueness (Hill & Lapsley, 2011), envy (Krizan & Johar, 2012), contingent self-worth (Zeigler-Hill et al., 2008), avoidance (Dickinson & Pincus, 2003; Foster & Trimm, 2011), shame, and anger (Krizan & Johar, 2015). NSC-GN items capture expressions of exploitativeness (Krizan & Herlache, 2017; Wink, 1991), omnipotence (Hill & Lapsley, 2011), boldness (Foster & Trimm, 2011), dominance, and exhibitionism (Dickinson & Pincus, 2003).

As in adults (Wink, 1991; Krizan & Johar, 2015), the results of Chapter 4 show that NSC-VN was associated with both externalising and internalising problems that were also associated with clinical impact on child well-being and home life, and NSC-GN was associated with externalising problems, although these were not associated with clinical impact. Important differences between the adult NS (Chapter 2) and the child NSC (Chapter 4) were also identified. In children (ages 8 to 11) and adolescents (ages 12 to 16), NSC-GN and NSC-VN shared small and positive correlations, whereas these dimensions were unrelated in Chapter 2 using the adult NS. The significant association between GN and VN in the child and early adolescent samples is inconsistent with the late adolescent (ages 16 to 18), undergraduate, and adult literature, which has found weak to negligible correlations between GN and VN factors and scales (e.g., Barry & Kauten, 2014; Krizan & Herlache, 2017; Miller et al., 2011). Given the similar item content between the NS and NSC, the similar expression yet difference in results between children and adults may reflect a developmental differentiation in narcissism dimensions. This is consistent
with the differential distinctiveness hypothesis, which states that dimensions of self-concept become more differentiated with age (Marsh & Ayotte, 2003).

Both the NSC-VN and NS-VN were negatively correlated with self-esteem (Chapters 2, 3 and 4). This is consistent with research on VN in adults (Pincus et al., 2009). In Chapter 4, NSC-GN and self-esteem were uncorrelated in children, which is consistent with previous research on GN in children (Barry, Frick, & Killian, 2003; Thomaes et al., 2008). However, in adolescents, a suppressor effect was found between NSC-GN and self-esteem, such that when the variance shared with NSC-VN was controlled, NSC-GN showed a weak positive correlation with self-esteem. The NS-GN showed a moderate positive correlation with self-esteem (Chapters 2 and 3) as has been found in previous research with adults (Sedikides et al., 2004). Taken together, this cross-sectional evidence suggests that the relationship between VN and self-esteem is stable across the childhood and into adulthood, but GN and self-esteem become more strongly correlated over time. Recent research has also found that high self-esteem in children can predict GN over time if boosted by inflated praise (Brummelman et al., 2017). Thus, although narcissism dimensions become increasingly differentiated over time, GN and self-esteem start to overlap. This may provide some evidence for psychodynamic theories, which postulate that narcissism transforms self-esteem over time (Blos, 1962). Specifically, GN, rather than VN, may scaffold or boost positive self-appraisals during the adolescent transition to self-sufficiency.

The NS and NSC clearly parse GN and VN, and cross developmental boundaries to enable comparisons of narcissism research between adults and children. The clear and consistent distinction between GN and VN documented across age-groups suggests that each may be linked to different early experiences and dispositions. Given the clear measurement of both expressions of narcissism that was achieved in the first three empirical chapters (Chapters 2, 3, 4), the
relevant socialisation and dispositional factors that have been implicated in the development of narcissism were then explored. Specifically, Chapter 5 tested the possible relationships between GN/VN, parenting style, and child temperament. To date, research on the development of narcissism has failed to consider the contribution of the child. This is a crucial shortcoming because socialisation factors are generally not sufficient precursors of child psychopathology (Belsky & Pleuss, 2009; Rothbart, 2007; Rutter, Moffitt, & Caspi, 2006; Svrakic et al., 2002). Furthermore, evidence has accumulated in support of temperamental distinctions between GN and VN dimensions in adults (Chapter 2; Cramer, 2011; Elliot & Thrash, 2001; Foster & Trimm, 2011; Jauk et al., 2017; Paulhus, 2001). Yet, no study has investigated these findings in research on narcissism in children.

Chapter 5 provided a summary of parenting and temperament factors implicated in the development of narcissism, and examined their relative associations with child GN and VN. Parental overvaluation was associated with NSC-GN. This is consistent with social-learning theories that implicate loving, warm, overinvolved parenting in the development of narcissism (Millon, 1981). In contrast, parental psychological control was associated with NSC-VN. This is consistent with object-relations theories that implicate cold, strict, controlling parenting (Kernberg, 1975). When the variance attributed to psychological control and overvaluation was accounted for, behavioural control/laxness and coldness/warmth, which have been linked to narcissism in previous studies, were no longer associated with narcissism in children. Furthermore, this chapter found individual differences in temperament to be as strongly associated with narcissism dimensions in children as parenting styles were. Specifically, GN was associated with approach temperament and VN was associated with avoidance temperament in children. The dissimilar temperaments and parenting associated with GN and VN dimensions
provide preliminary evidence that each expression of narcissism may follow a different developmental trajectory.

Interestingly, self-esteem was negatively associated with avoidance temperament, positively associated with parental warmth, and negatively associated with psychological control. Combined with past empirical research on self-esteem and narcissism, it appears that, across the lifespan, self-esteem and narcissism are qualitatively distinct (Brummelman, Thomaes, & Sedikides, 2016; Eromo & Levy, 2017). Although GN and high self-esteem may be difficult to differentiate at face value (e.g., ‘I am happy with myself’ versus ‘I am special’), they are associated with not only different behavioural, social, and emotional consequences in children (Chapter 4), but also diverse socialisation experiences and temperaments in children (Chapter 5).

Chapter 6 then explored self-conscious emotions that may underlie the dysregulation that is characteristic of narcissistic self-appraisals. A brief (5-minute) but challenging maze task was utilised to induce feelings of frustration that would constitute a mild ego-threat experience in children. The results of this study revealed that emotional responses varied as a function of self-appraisal. Self-esteem was negatively correlated with guilt, shame, hostility, and anger and positively associated with social performance estimates. GN was uncorrelated with self-conscious emotions but was associated with increased task performance estimates following ego-threat. These findings are consistent with research demonstrating that GN and self-esteem are more strongly related to agentic and communal goals, respectively (Campbell et al., 2002). Prior to commencing the maze task, VN was positively correlated with feelings of guilt, shame, anxiety, hostility, and anger, and, following 5 minutes of the challenging maze task, showed stronger associations with all indices, except guilt. This is consistent with adult research that has found VN, but not GN, to be associated with negative self-conscious emotions and indices of
aggression, especially in the face of ego-threat (Krizan & Johar, 2015), yet contradicts the role of high self-esteem and GN in reactivity to ego-threat as described in threatened egotism theory (Baumeister, Smart, & Boden, 1996). The results of this study provide further evidence for the distinction between GN and VN in children, attest to the sensitivity and reactivity to perceived ego-threats in VN, and suggest that these emotional reactions may begin early in life.

The results of Chapters 5 and 6 provide evidence that expressions of narcissism in children mirror the two themes apparent in narcissism theories and described by Fiscalini (1993) as: the special child (GN) and the shamed child (VN). As social learning theories explicate, GN may be a delusional superiority, boosted by overvalued parenting and a penchant for self-enhancement. By contrast, VN may be a mask of self-aggrandisement that hides a devalued self that is vigilant to ego-threat, as explicated by object-learning theories. The combination of functional impairment and distress (Chapter 4) and reactivity to threat (Chapter 6) illustrates how and why VN has been considered the pathological dimension of narcissism (Pincus et al., 2009). Future developmental research will benefit from considering the contribution of distinct parenting styles, temperaments, and self-conscious emotions to the emergence or maintenance of GN and VN. In particular, incorporating these constructs into longitudinal research will provide a solid test of causal theories on the development of narcissism.

Implications of the Research

The findings of this thesis add to the growing evidence base that two broad expressions of narcissism exist and present with important differences in adults (Cain et al., 2008; Chapter 2, 3). Importantly, this thesis extends the distinction between GN and VN to children and adolescents by providing a measurement tool for both forms of narcissism in these groups, and demonstrating that each dimension of narcissism shows a similar patterns of association with
temperament, emotions, behaviours, and attachment as is found in adults (Chapter 4, 5, 6). Many studies have found that GN and VN diverge substantially in adults (Krizan & Herlache, 2017; Miller et al., 2011). The findings of the current research support longstanding clinical theories that suggest that these differences may be a consequence of experiences in childhood (Kernberg, 1975; Kohut, 1977, Millon, 1981). Although the research findings of this thesis do not allow for causal interpretations, previous research has demonstrated that the development of personality and psychopathology are, in part, the result of childhood processes (Buss & Plomin, 2014; McCrae et al., 2000; Nigg, 2006). The findings presented in the current research support this notion and have a number of implications, specifically for understanding the structure, measurement, and models of narcissism, as well as the nature of narcissism in childhood. The following sections present a discussion of these implications in the context of existing theory and research.

Grandiose and Vulnerable Narcissism

There is general agreement that the narcissism construct is divided into two major dimensions, GN and VN (Krizan & Herlache, 2017; Miller et al., 2017). This bifurcation of narcissism was evident in each chapter of this thesis. Recognising the differences between GN and VN is essential for drawing clear conclusions on narcissism, as each is associated with different symptoms and behaviours (Chapters 2 and 4), personality traits and self-appraisals (Chapter 3), temperaments (Chapters 2 and 5), parenting styles (Chapter 5), and responses to ego-threat (Chapter 6). However, a comprehensive understanding of GN and VN requires knowledge of their similarities as well as their differences. Much of the current narcissism literature endorses the view that GN and VN are two distinct dimensions characterised by two unrelated and seemingly antithetical nomological networks that seem more closely related to
other personality disorders than each other (Miller et al., 2011, 2017). For example, GN is a part of the *dark triad of personality*, which is also composed of machiavellianism and psychopathy (Paulhus & Williams, 2002), whereas VN is a part of the *vulnerable dark triad*, which is also composed of factor 2 psychopathy and borderline personality disorder (BPD; Miller et al., 2010). To date, attempts to consolidate the two narcissism dimensions under a central construct have been insufficient and largely guided by examining FFM trait profiles.

FFM structural analyses of narcissism have determined neuroticism to be the diagnostic specifier of VN, and extraversion the diagnostic specifier of GN, and advocate disagreeableness (antagonism) as the defining core of narcissism (Campbell & Miller, 2017; Miller et al., 2017). However, even within the FFM agreeableness factor, dramatic differences between GN and VN are evident (Miller et al., 2016, 2017). Using the NS, Chapter 3 confirmed the FFM model of narcissism. In Chapter 4, the utility of the six-factor HEXACO model of personality to further our understanding of the structure of narcissism was demonstrated. Using the HEXACO, low HH represented the common dark core of narcissism and extraversion represented the defining peripheral characteristic of narcissism. Distinguishing HH and agreeableness informs our understanding of the narcissistic personality and how it differs from other personality configurations. For example, BPD, which is commonly conflated with VN, is characterised by low agreeableness but normal levels of HH (Theilmann, Hilbig, & Niedtfield, 2014). Low HH reflects extrinsic life aspirations whereby one seeks status and wealth by cheating and defeating others (Ashton, Lee & Vries, 2014; Visser & Pozzebon, 2013). While low HH represents an active, opportunistic tendency to exploit others, low agreeableness represents a tendency towards angry, unforgiving reactions to perceived exploitation from others (Ashton, Lee & Vries, 2014).
By revealing a sixth factor (HH) in the model of personality, the HEXACO has extended our understanding of narcissism’s dark core of entitlement/exploitativeness.

Although GN and VN are uncorrelated factors in adults, when personality trait variance was controlled, GN and VN were moderately and positively correlated and extraversion emerged as the strongest predictor of both dimensions (albeit in opposite directions, GN is the more extraverted and VN more introverted expression). Thus, the narcissistic personality in adults is defined by a common core, but this core construct ranges between two extremes as a function of their personality, with bold and pretentious expressions representing one pole, and inhibited and insincere expressions representing the other. Thus, GN and VN may occur in pure form, but it is also possible that individuals may embody phenomenological features of both GN and VN. However, this is likely to be represented by tempering the opposing peripheral characteristics of narcissism (moderate levels of extraversion and emotionality). The idea of ‘core narcissism,’ or narcissism that controls for intra-individual differences in personality dimensions, is useful for theory building and understanding the underlying narcissism construct. However, the utility of a homogenous scale of narcissism has yet to be demonstrated. Thus, GN and VN scales represent two operational definitions and largely distinct dimensions of the abstract narcissism construct.

Meta-analytic investigations of personality have previously illustrated that a combination of high neuroticism and low extraversion, as evident in VN, is particularly problematic intrapersonally (Brezo, Paris, & Turecki, 2006). The presence of low HH and agreeableness is likely to exacerbate this dysfunction into the interpersonal realm, making VN a particularly maladaptive personality configuration. In contrast, GN, self-esteem, and self-compassion are all associated with high extraversion and low neuroticism. If peripheral (Chapter 3) or intrapersonal (Chapter 2) characteristics are considered in isolation, GN appears to be adaptive and is
indistinguishable from optimal self-esteem (Campbell et al., 2002; Paulhus, 1998). But if core
(Chapter 3) or interpersonal (Chapter 2) characteristics are considered in isolation, GN looks
strikingly similar to primary psychopathy (Lee & Ashton, 2005). These such elemental
investigations inform our understanding of narcissism, however, assessing isolated traits has
limited applicability to real people. This research highlights the importance of acknowledging
*personality configurations* rather than isolated traits to understand the valence and adaptiveness
of various self-appraisals (Ashton, Lee & Vries, 2014; Eromo & Levy, 2017; Morf & Rhodewalt,
2001).

Understanding the structure of narcissism allows for future research to develop a
consensual definition of narcissism, common nomenclature, and clarity around the measurement
of narcissism dimensions. As shown in Chapter 3, current measures of ‘narcissism’ can be
retrospectively validated and correctly categorised according to their associations with core and
peripheral narcissistic personality traits; thus, structural investigations can inform a ‘bottom-up’
approach and can help resolve the *jingle fallacy* evident in the measurement of GN and VN (i.e.,
when different constructs are labeled with the same name). It has been stated that our
understanding of the narcissism construct and its diverse expressions will grow exponentially if
empirical studies include measures of both GN and VN (Campbell & Miller, 2011; Miller et al.,
2017). This growth can now be facilitated by the scales developed in this thesis, which correctly
label and clearly parse GN and VN in adults (NS; Chapter 2) and in children (NSC, Chapter 4).

Both GN and VN necessarily include characteristics of grandiosity and vulnerability, but
their diverse associations with stable personality traits and self-esteem suggest that they represent
two distinct narcissism personality types (Akhtar & Thomson, 1982; Broucek, 1982, Given-
Wilson et al., 2011; Kohut, 1971, Wink, 1991). In retrospect, it is unfortunate that Cain et al.
(2008) chose the labels ‘grandiose narcissism’ and ‘vulnerable narcissism’ to represent the two broad dimensions of narcissism, as it has created considerable confusion around narcissism nomenclature. For example, in their seminal paper on narcissism, Morf and Rhodewalt (2001) described the core of narcissism as a “grandiose yet vulnerable self-concept” and they cited wide agreement among authors for the paradoxical juxtaposition of characteristics grandiosity and vulnerability coexisting in narcissistic personalities. In this theoretical paper, they described the GN personality in detail, where GN grandiosity is directly and readily expressed in self-reports or behaviour, but GN vulnerability is inferred indirectly by their dependency on self-affirming feedback from others and their volatility under specific conditions of ego-threat (Morf, Torchetti, & Schurch, 2011; Rhodewalt & Morf, 1998).

To illustrate, individuals with pathological GN are described as “boastful, arrogant, and self-absorbed and use others as an audience for their ‘performance’… their character armor is impenetrable and serves to protect them from feeling inferior, vulnerable, or hurt… they may spend an hour in boastful self-aggrandisement in an effort to impress the therapist with their superior status” (Ronningstam, 1998, p. 129). This description of pathological GN is consistent with the NS-GN item content as well as its associations with temperament and personality in undergraduates and adults. Furthermore, in this description there is evidence for discernable grandiosity (i.e., ‘boastful, arrogant, and self-absorbed’) and a more subtle vulnerability (i.e., ‘armor [that] serves to protect them’ and ‘in an effort to impress’) in the expression of GN.

This is in contrast to the VN personality, in which insecurities are openly expressed and grandiosity is suppressed but revealed by their self-absorption and fantasies of uniqueness (Kohut, 1971). To illustrate, individuals with pathological VN are described as “exquisitely sensitive to the reactions of others and therefore eschew the limelight because the potential for
narcissistic injury is magnified in such settings. Their grandiosity is quieter and takes the form of a conviction that they are entitled to be treated in a highly special way by others” (Ronningstam, 1998, p. 129). These descriptions of pathological VN are consistent with the item content of the NS-VN scale, as well as its associations with temperament and personality. Furthermore, in this description there is evidence for discernable vulnerability as well as a more subtle grandiosity in VN. Thus, both expressions of narcissism are paradoxical, but in different ways. The GN dimension combines adaptive intrapersonal functioning with maladaptive interpersonal functioning, whereas the VN dimension combines an inflated self-appraisal with low self-esteem. In sum, I suggest that grandiosity and vulnerability describe states of GN and VN that may fluctuate depending on the circumstance, whereas GN and VN describe personality dimensions and represent the individual’s predominant style of interacting.

Although GN and VN share a common core, the observed personality differences between the factors in adults (Chapters 2 and 3) suggest that GN and VN represent two distinct valence-based dispositions, one conceptualised as a tendency towards positive emotions and approach behaviours, and the other conceptualised as a tendency towards negative emotions and avoidance behaviours. Valence-based processes in humans have been linked to primary neurobiological sensitivities that are accompanied by a perceptual vigilance for and affective reactivity to certain stimuli, and these processes are thought to shape human personalities over time (Buss & Plomin, 2014; Carver, Sutton, & Scheier, 2000; Gray, 1990, McCrae et al., 2000; Nigg, 2006). That GN and VN reflect two distinct valence-based dispositions is further supported by the distinct temperaments evident in GN and VN in adults (Chapter 2) and children (Chapter 5). In sum, the substantial differences between GN and VN provide evidence that they may be distinct dimensions of narcissism that are linked to different contributing factors in early
development. These results reinforce the importance of differentiating between GN and VN in future research, and particularly in developmental research.

*Childhood Narcissism*

The core premise of psychodynamic theories is that narcissism is a developmental process that protects self-esteem and allows individuals to develop positive feelings towards themselves by creating a distorted, inflated self-appraisal (Freud, 1914; Kernberg, 1975; Kohut, 1977). The dynamic self-regulatory processing model aligns with the mask model of narcissism in that both describe a paradoxical dynamic whereby an individual simultaneously holds two inconsistent self-appraisals (e.g., grandiosity/superiority and vulnerability/inferiority; Morf & Rhodewalt, 2001). This process provides the best explanation for the findings in this thesis, however, certain interpretations would benefit from some adjustments in light of the current results. There is a persistent belief that narcissistic grandiosity can be described as high self-esteem (Baumeister et al., 1996; Brummelman et al., 2015). Yet previous investigations of the mask model using explicit high self-esteem and implicit low self-esteem to measure narcissistic self-appraisals have been inconclusive (Bosson et al., 2008). Indeed, many researchers have been perplexed as to how an individual can endorse symptoms of narcissistic self-enhancement but not also symptoms of high self-esteem on self-report measures (Miller et al., 2017).

Research on narcissism in children may help to reconceptualise the mask model and this paradoxical dynamic evident in narcissistic personalities. Adult research often defines narcissism as high self-esteem (e.g., Baumeister et al., 1996; Bosson et al., 2008). Interestingly, despite other similarities with narcissism in adults, narcissism in children was not associated with high self-esteem. To differentiate inflated self-appraisals, Hill and Lapsley (2011) discussed the different roles of feelings of omnipotence versus feelings of uniqueness in the separation-
individuation process in adolescents. In line with this distinction, the findings of this thesis also demonstrate the utility of distinguishing between beliefs of worth (self-esteem), omnipotence (GN), and uniqueness (VN). Even prior to adulthood, each of these self-appraisals were associated with different strengths and difficulties (Chapter 4), temperaments and parenting (Chapter 5), and reactivity to threat (Chapter 6).

Thus, the self-appraisal discrepancy described by the mask model may reflect the distinction between one’s ideal and actual self, which becomes salient in middle childhood and may be reflected in narcissism and self-esteem, respectively. This distinction is evident in the negative association between NSC-VN and self-esteem, and may also explain the emotional reactivity of VN to ego-threat (Chapter 6). This distinction also reflects research in adults that has found GN and VN to be associated with identity-impairment (Given-Wilson et al., 2011). Impaired reality testing has been associated with GN in adults, and identity diffusion and primitive defense mechanisms have been associated with VN in adults (Pincus et al., 2009). Impaired reality-testing, identity diffusion, and primitive defense mechanisms were also associated with psychopathic traits in a nonclinical sample of adolescents (Chabrol & Leichsenring, 2006). The results of this thesis provide evidence that VN may mask low self-esteem, however, to date there is little evidence for this dynamic in GN. Thus, as described by Eromo and Levy (2017) in their recent model of self-esteem, both GN and VN are both defined as a distorted (vulnerability) and inflated (grandiosity) self-appraisal, yet they proposed that the GN mask is stable and non-compensatory, whereas the VN mask is unstable and compensatory.

To date, current child narcissism literature has focused on the impact of overvalued parenting and the associated behaviour of inflated praise in the development and maintenance of (grandiose) narcissism. The findings of this thesis confirm the link between overvaluation and
GN (Chapter 5) and suggest that GN may be an addiction to self-enhancement that results from social learning (Brummelman et al., 2015; Millon, 1981). However, social learning theories do not account for the observed dynamics of VN in children. The findings of this thesis are consistent with the supposition that both expressions of narcissism are motivated to maintain an inflated sense of self; however, the unique associations of each narcissism dimension suggest that one does so through self-enhancement and proactive strategies (i.e., GN), and the other does so by compensatory self-protection and reactive strategies (i.e., VN). GN may be maintained by overvaluation and inflated praise, and VN may be maintained by psychological control and shame, however, longitudinal analyses are needed to determine what propels these associations.

The role of shame in narcissism is widely discussed in clinical conceptualisations of narcissism. Indeed, the narcissistic character structure is theorised to be a defense against shame itself (e.g., Broucek, 1982; Lewis, 1987; Morrison, 1989; Willock, 1987). However, due to the nonsignificant correlation with between shame and narcissism measured using the NPI (which predominantly measures adult GN), shame has been neglected in the empirical literature prior to the development of measures that delineate GN and VN (Gramzow & Tangney, 1992; Pincus et al., 2009). Comprehensive investigations that distinguish between GN and VN have been crucial to our understanding of the role of shame in narcissism. Consistent with clinical descriptions, recent studies have found VN to be robustly associated with shame in adults (Krizan & Johar, 2015). In this thesis, VN in children was linked to shame-based reactivity (Chapter 6), avoidance temperament, and psychological control (Chapter 4). These negatively valenced associations suggest the VN inflated self-appraisal may be a compensatory defense against shame. Thus the interplay between dispositional and environmental factors may help to elucidate the VN ‘mask.’
Self-Determination Theory (SDT) describes the role of parental psychological control in the development of narcissism. According to this theory, parental psychological control teaches the child that they are not intrinsically deserving of love, but rather, that love is contingent on their compliance, which results in an unstable sense of self-worth (Assor & Tal, 2012). This style of parenting is therefore thought to inhibit the development of a secure sense of self and result in an introjected regulatory style that is characteristic of narcissism (Ryan & Brown, 2003). Hence, in the child’s desire to avoid the covert yet painful punishment of guilt, shame, and love-withdrawal, the parent’s (rather than the child’s) needs are internalised and become the primary motivating force of the child’s behaviour (Soenens & Vansteenkiste, 2010). In sum, SDT is consistent with object-relations theories and provides theoretical precision as to how a child may develop identity distortion when they are not really loved for themselves as a person (Brummelman et al., 2015; Kealy et al., 2015).

Furthermore, psychological control implies behaviour regulation that is motivated by the avoidance of feelings of shame and anxiety, rather than externally imposed punishments (Soenens & Vansteenkiste, 2009) and avoidance temperament is defined as a neurobiological sensitivity to perceived negative stimuli (Elliot & Trash, 2001). Thus, avoidance may be an adaptive coping strategy that protects VN from overwhelming negative emotions. This thesis provides preliminary support for this supposition by linking VN in children with psychological control, avoidance temperament, and shame. However the relative contributions of these facets require longitudinal exploration. Although important longitudinal research has been conducted with GN, this research did not examine VN or parental psychological control (Brummelman et al., 2015), and thus this question remains to be answered.
Prior to this research program, retrospective reports of parental psychological control had been linked to GN and VN in adults (Horton, Bleau, & Drwecki, 2006; Horton & Tritch, 2014; Miller & Campbell, 2008). Despite this, the child (grandiose) narcissism literature has remained focused on parental coldness, rather than parental psychological control, as the operational definition of the devaluing parenting style emphasised in object-relations theories (Brummelman et al., 2015; Otway & Vignoles, 2006). This emphasis has led to premature conclusions and generalisations being made around the origins narcissism, with developmental researchers championing parental overvaluation and inflated praise as the primary causes of narcissism in children (Brummeleman et al., 2015; Brummelman et al., 2017). The inclusion of both coldness and psychological control in one study that measures both GN and VN (Chapter 5) is a welcome addition to the literature. Future investigation into psychological control and shame in VN, especially longitudinal investigations, are now warranted in order to paint a comprehensive picture of the causes and consequences of childhood narcissism. The NSC (Chapter 3), which clearly parses GN and VN in children, will enable such investigations.

**Limitations of the Research**

Although helpful in moving the field forward, especially in relation to documenting evidence for GN and VN in children, this research has limitations. First, the data collected for this research were obtained primarily via online self-report. Self-report can be susceptible to response bias and distortion via self-enhancement, self-diminishment, or defensive responding, which can lead to questionable validity (Gunderson, Ronningstam, & Bodkin, 1990; John & Robins, 1994). However, having said that, individuals high in narcissism are generally willing to admit to undesirable narcissistic traits (Konrath, Meier, & Bushman, 2014). Furthermore, online anonymity allows for increased response accuracy (Kreuter, Presser, & Tourangeau, 2008) and
may mitigate the effects of distorted responses. Response validity is also enhanced by the use of brief self-report measures that mitigate the effects of participant fatigue, drop-out, and response quality (Cape & Phillips, 2015). While the failure to discriminate between narcissism and self-esteem has been a limitation of self-report research to date (John & Robins, 1994; Sedikides et al., 2004), using online self-report methodologies, the studies reported in this thesis were able to distinguish between self-appraisals (GN, VN, self-esteem, and self-compassion) across studies, attesting to the response validity and reliability of the reported studies. Still, it is recommended that future studies on narcissism investigate the validity of self-report measures of the NS and NSC by examining the incremental validity of parent-, teacher- or peer-rated scores.

The findings of this research are also limited by the reliance on correlational and cross-sectional evidence. Although these results are encouraging and demonstrate important differences in the correlates between GN and VN, the methodology used precludes conclusions regarding causation. Causal models of narcissism are in still in their infancy and much groundwork needs to be done before etiological investigations can be conducted with precision. Still, causal models are informed by and built on studies with findings that are correlational (Rutter, 2007). The purpose of this thesis was to contribute to this groundwork and reinvigorate inferences regarding dual-pathways to narcissism. Research on personality and psychopathology has illustrated how diverse causal pathways can lead to the same endpoint in adults (Rothmann & Greenland, 2005; Rutter et al., 1997). This thesis explored the bifurcated structure of narcissism in adults and, importantly, provided evidence for the distinction between GN and VN prior to adulthood. This thesis also identified and demarcated variables that may prove useful to enhancing our understanding of the etiology and phenomenology of narcissism dimensions.
However, longitudinal work is needed to answer such questions and expand our knowledge of developmental pathways.

Finally, this research program was conducted in Australia and participants were recruited primarily from Western Australia. Thus, the findings of this research may not be generalisable to children from other countries. Still, this research extends the cultural reach of existing child narcissism research, which has primarily been investigated in the Netherlands (e.g., Thomaes et al., 2008) and the United States of America (USA; e.g., Barry et al., 2003). Moreover, in all studies reported in the current thesis, adult participants reported their ethnicity and no differences in GN or VN were identified across these groups. The factor structures of narcissism reported in Chapters 2 and 4 reflect the results of factor analytic investigations conducted in the USA (e.g., Wink, 1992; Krizan & Herlache, 2017), and demonstrated good fit in multiple samples. This gives us confidence that these results are likely to be replicable in different Western cultural groups. However, an investigation into child narcissism in Eastern cultural groups that traditionally promote a more collectivist and humble view of the self is warranted (Spencer-Rodgers, Peng, Wang, & Hou, 2004; Uskul, Oyserman, & Schwarz, 2010; Wong & Tsai, 2007).

**Future Research Directions**

In this thesis, GN was associated with deceitfulness, entitlement, and aggression in adults, and externalising problems in children; however, in each study, GN was the more adaptive expression of narcissism (but still clearly differentiated from high self-esteem). Previous research on narcissism in adults has demonstrated that VN is the more maladaptive expression of narcissism, as this dimension is associated with both internalising and externalising problems (Pincus et al., 2009). This thesis provides evidence that VN exists in children and is associated with functional impairment and distress for both the child and family. The links
between VN, avoidance, and affect dysregulation reported in this thesis suggest that VN is not only likely to affect the child’s intrapersonal functioning, but also their feelings of competence and performance at school (Aunola & Nurmi, 2004; Soucy & Larose, 2000) and social relationships (Loukas, Paulos & Robinson, 2005; Nelson & Crick, 2002). Furthermore, psychodynamic theory has linked attempts to cope with shame with hyper-aggressiveness in children (Willock, 1987). Indeed, empirical research has identified VN, but not GN, in adults as a key source of narcissistic rage (Krizan & Johar, 2015). Thus, VN may be particularly disruptive to optimal child development and priority should be given to exploring the maladaptive consequences of narcissism prior to adulthood. Doing so will see a shift in focus of empirical work on narcissism in childhood, which, to date, has focused on GN.

Still, the relationship between GN and VN needs further explication. The current research program indicates that GN and VN may be distinct personality configurations. GN and VN share a common core, but are uncorrelated with each other in adults as they are associated in opposite directions with stable traits including extraversion, emotionality, and self-esteem. GN and VN are also associated with different parenting styles and temperaments, yet they are correlated factors in children and adolescents. Future research should begin to take a lifespan approach to determining the relationship between GN and VN. In particular, interpersonal theory proposes that dimensions of GN and VN in adults may fluctuate momentarily in specific, vulnerability-provoking interpersonal situations (Edershile et al., 2018; Pincus & Ansell, 2003). Future studies should attempt to capture the proposed fluctuations between GN/VN, but should also consider within-factor fluctuations of grandiosity and vulnerability (see pg. 252 - 254) in case GN and VN are distinct phenotypes. It should be noted that previous research has found that GN is related to self-deceptive enhancement rather than impression management (Paulhus, 1998; deVries et al.,
2014). Furthermore, previous attempts to measure covert fragility or worthlessness in GN under threat conditions suggest that GN involves rapid unconscious suppression of vulnerability, and hence self-report may have limited utility in such investigations (Horvath & Morf, 2009, 2010).

Finally, developmental researchers should explore early interventions for narcissism. The current research suggests that low honesty-humility and low self-compassion are at the core of the narcissistic personality, and that child VN is characterised by negative self-conscious emotions. Emerging research on GN in children has found that attempts to ‘boost’ children’s self-appraisals with overly positive regard backfires (Brummelman et al., 2014, 2015, 2017). Rather than raising self-esteem as intended, inflated praise predicted lower self-esteem over time in children with initial low self-esteem, and predicted GN over time in children with initial high self-esteem (Brummelman et al., 2017). Furthermore, boosting self-esteem results in blushing in socially anxious children, which is thought to be a physiological indicator of the activation of shame (Nikolic et al., 2018). Although these studies did not measure VN, they indicate that attempts to boost self-esteem through praise or overvaluation are unlikely to increase self-esteem, but rather, may instead foster a belief in one’s superiority over others and lower self-esteem in already vulnerable children. This is especially concerning given that parents and teachers are more likely to try to ‘boost’ low self-esteem in children through such tactics (Brummelman et al., 2014). In order to counter the negative effects of unrealistically positive self-appraisals, developmental research may wish to consider interventions that boost humility through the self-transcendent emotions: compassion, awe, and gratitude (Kramer et al., 2018; Ruberton, Kruse, & Lyubomirsky, 2016; Stellar et al., 2017, 2018). Perhaps in an answer to the riddle posed by the blind seer, Narcissus may live a long and happy life if he can learn to ‘know himself’ and others by developing self-transcendent emotions (Metamorphosis 3.348).
Concluding Thoughts

Narcissism continues to captivate both psychologists and popular culture. Empirical evidence continues to reveal paradoxical nuances in the structure and function of the narcissistic personality, yet there has been a paucity of research that addresses these nuances in children. Consequently, our understanding of narcissism prior to adulthood is limited. Research continues to indicate that individuals growing up in modern western societies have higher narcissism and lower self-esteem (Twenge & Campbell, 2009; Vater, Moritz, & Roepke, 2018). As Generation Me grows and begins to parent, the need to understand the deleterious effects of narcissism on the self and society may be more pertinent than ever. Accepting the diverse and multifaceted nature of narcissism is essential to creating a consensual understanding of narcissism that considers the perspectives of the many converging disciplines. Successful scientific endeavour will always be defined by healthy debate and the evolution of knowledge, as has been seen in the narcissism discourse over the centuries. It is my hope that the findings of this thesis can provide greater measurement specificity to enhance narcissism research and advance our understanding of the causes and consequences of narcissism as it is manifest in our world today.

In closing, a word against unconditional and inflated positive regard. Unfortunately, the English language suffers from a dearth of words with which to describe love. Consequently, we may struggle to describe with words the depth of feeling encompassed by love. It can feel good and even accurate to tell our loved ones that they are winners, perfect, unique, and special. However, a careful examination of these words will reveal each of them to be false. Despite our best intentions, these mantras do not convey love; rather, they convey an intolerance of mistakes and imperfection, and may foster a compensatory sense of entitled self-importance rather than acceptance and care. The only thing that should be unconditional is purely and simply love itself.
References


Konrath, S., Meier, B. P., & Bushman, B. J. (2014). Development and validation of the single item narcissism scale (SINS). *PloS One*, 9(8), e103469.


doi:10.1207/S15327965PLI1204_1


Appendices.
Appendix A. Example Recruitment Flyer

Research volunteers needed!
Researchers at the University of Western Australia are investigating how a child’s physiology and personality interact and influence their emotions during two different learning tasks, a computer task and a maze task. This research will contribute to a larger project investigating how children develop a sense of self (e.g., self-esteem and narcissism).

Temperament and Personality Development in Children.

Who’s needed?
Parents of 8-12 year old children and the children themselves.

What’s involved?
You will need to bring your child into Scitech so they can participate in a short (30 minute) experiment. Parents also fill out a short questionnaire (10 min).

Compensation?
Participants will receive a summary of the study results and will be reimbursed with a $10 Coles/Myer voucher.

If you are interested, please contact:
kate.derry@research.uwa.edu.au
for more information.
Appendix B. Example Participant Information Forms - Parent

Parent Information Form

**Project title:** Temperament and Personality Development in Children.

**Name of Researchers:** Miss Kate L. Derry, Dr. Jeneva L. Ohan, Dr. Donna M. Bayliss

**Aim of the Study (What is the project about?)**

The aim of this project is to explore how personality traits in children (in particular, narcissism, which is a very high view of one’s self) relate to emotions and temperament when they learn or perform new or challenging tasks. We are doing this in two ways. First, we will look at how children respond to a challenging task (a set of tricky mazes), including their thoughts and feelings about their performance. Second, we will look at how children’s personalities influence how they respond to points and penalties in a computer task. We will also be looking at how the tasks influence a child’s physiological state by monitoring their heart rate during the study, as heart rate can be used as a measure of temperament.

**What does participation involve?**

If you consent to your child being involved in the study, your child will be asked to wear a heart rate monitor (a chest-strap) and then asked to complete a questionnaire about his/her personality. Your child will then be asked to participate in two activities (a challenging maze and computer task). Prior to and following the maze task, your child will complete a questionnaire that will ask them about their mood (e.g., do you feel... proud/small/kind/angry etc.). The computer task will show children a set of numbers and circles and they will be asked to discriminate between odd and even numbers as fast as they can. The entire study should take around 30 minutes.

We will also ask you to fill out a short questionnaire about your child’s behaviour.

**Voluntary Participation and Withdrawal from the Study**

Participation in this project is voluntary. If you give consent for your child to participate, you are free to withdraw your consent at any time without having to give a reason and without consequence. If you consent for your child to participate, then we will also explain this study to your child and seek his/her agreement to participate. Your child will also be told that he/she is free to withdraw from the study at any time. If you withdraw part way through the study, your data will be destroyed. If you withdraw afterwards, it will not be possible to destroy your data as all information collected will be anonymous.

**Your privacy**

The data collected from each child will be allocated a code and all data stored will be labelled with this code rather than a name. Any information gathered in the course of the study is confidential,
as the law allows. Confidential information will be stored in lockable offices and encrypted files on computers. The collected data will be held securely until the youngest study participant is 25 years old. The results may be used in student theses, presented at conferences, published in scientific journals and/or summarised for websites and the media. No participant will be identified in any reports.

Possible Benefits

It is possible that by completing a questionnaire about how they think and feel about themselves, your child will learn about their self and their thought processes. More generally, finding out how children with different temperaments and personalities are motivated will help us in developing better strategies for encouraging children in learning environments.

Possible Risks and Risk Management Plan

There are no known risks associated with participation in this study. As the maze task is challenging, children may become frustrated, however, all participants are free to stop participating at any time.

Reimbursement

Finally, you and your child will be given one $10 Coles/Myer voucher for your travel costs and time expended participating in the study.

Contacts

If you would like to participate or discuss any aspect of this study please feel free to contact Dr. Ohan at jeneva.ohan@uwa.edu.au or Kate Derry on 0411 811 212 or kate.derry@research.uwa.edu.au

Sincerely,

Chief Investigator

---------------------------------------------

Approval to conduct this research has been provided by the University of Western Australia with reference number RA/4/1/8379, in accordance with its ethics review and approval procedures. Any person considering participation in this research project, or agreeing to participate, may raise any questions or issues with the researchers at any time. In addition, any person not satisfied with the response of researchers may raise ethics issues or concerns, and may make any complaints about this research project by contacting the Human Ethics office at UWA on (08) 6488 4703 or by emailing to humanethics@uwa.edu.au. All research participants are entitled to retain a copy of any Participant Information Form and/or Participant Consent Form relating to this research project.
Appendix C. Example Participant Information Forms - Child

Child Information Form

Why are we doing this study?

Like adults, kids all have different personalities. For example, you might know a kid who is confident and likes to try new things, and another who likes to know what is going to happen each day, and likes it when things are the same. These are examples of different types of personalities. In this research, we want to study personality and how kids think about and feel in two different learning tasks. We would also like to know how children’s heart beat changes when they do two tasks. One is a challenging maze task and the other is a computer task.

What do kids in the study do?

If you take part, you will need to put a band around your chest that will measure your heart beat. If you can’t get it on yourself, your parent or guardian can help you. Then we will ask you to answer some questions about how you think and feel about yourself. After that you will complete a set of mazes and then a short computer task. Lastly, we will ask you a few more questions. This will take about 30 minutes and then the study will be over. But first you need to finish reading this before you decide if you want to take part.

Taking part or not taking part in the study.

Taking part in this study is entirely up to you. If you decide to take part, you are free to quit any time. You can do this by telling the researcher you don’t want to take part in the study anymore.

What will happen if I decide to take part in the study?

If you take part in the study, you will help us find out if the way you feel affects your heart beat and your behaviour. We can use this information for science to teach parents or teachers in the future about children and this will help kids to learn better. When lots of children have participated, we will send your parents or guardians an email describing how children learn. This information will not describe how you answered your questions or what you did, as your answers are confidential (this means that we will not ask your name so no one else will know how you answered the questions). Instead, the email will describe how most of the children that took part in the study think about themselves.

Approval to conduct this research has been provided by the University of Western Australia with reference number RA/4/1/8379, in accordance with its ethics review and approval procedures. Any person considering participation in this research project, or agreeing to participate, may raise any questions or issues with the researchers at any time. In addition, any person not satisfied with the response of researchers may raise ethics issues or concerns, and may make any complaints about this research project by contacting the Human Ethics office at UWA on (08) 6488 4703 or by emailing to humanethics@uwa.edu.au. All research participants are entitled to retain a copy of any Participant Information Form and/or Participant Consent Form relating to this research project.
Appendix D. Example Consent Form - Parent

Parent Consent Form

Project title: Temperament and Personality Development in Children.
Name of Researchers: Miss Kate L. Derry, Dr. Jeneva L. Ohan, Dr. Donna M. Bayliss

I, ______________, have read the information provided and any questions I have asked have been answered to my satisfaction. I agree for my child, __________ to participate in the study realising that I may withdraw my consent at any time without reason and without prejudice.

I understand that all information provided is strictly confidential and will not be released by the investigator. The only exception to this principle of confidentiality is if documents are required by law. I have been advised as to what data is being collected, what the purpose is, and what will be done with the data upon completion of the research.

I agree that research data gathered for the study may be published provided my name, my child’s name, child’s school or other identifying information is not used.

If I would like to receive a summary of the results when they are available, I understand that the contact details I provide will only be used for the purpose of contacting me.

Parent/Guardian Signature ___________________________ Date ____________

Contact Phone Number: ________________ (Home) ________________ (Mobile)

Email Address: _____________________________________________________

Postal Address: _____________________________________________________

Approval to conduct this research has been provided by the University of Western Australia with reference number RA/4/1/8379, in accordance with its ethics review and approval procedures. Any person considering participation in this research project, or agreeing to participate, may raise any questions or issues with the researchers at any time. In addition, any person not satisfied with the response of researchers may raise ethics issues or concerns, and may make any complaints about this research project by contacting the Human Ethics office at UWA on (08) 6488 4703 or by emailing to humanethics@uwa.edu.au. All research participants are entitled to retain a copy of any Participant Information Form and/or Participant Consent Form relating to this research project.
Appendix E. Example Consent Form - Child

Child Consent Form

- I would like to take part in this project.
- I know what I will be asked to do as part of the project.
- I know that I can stop when I want to.
- I understand that I need to write my name in the space below, before I can be a part of the project.

Your name: ___________________________ Today's Date: ______/____/____

Approval to conduct this research has been provided by the University of Western Australia with reference number RA/4/1/8379, in accordance with its ethics review and approval procedures. Any person considering participation in this research project, or agreeing to participate, may raise any questions or issues with the researchers at any time. In addition, any person not satisfied with the response of researchers may raise ethics issues or concerns, and may make any complaints about this research project by contacting the Human Ethics office at UWA on (08) 6488 4703 or by emailing to humanethics@uwa.edu.au. All research participants are entitled to retain a copy of any Participant Information Form and/or Participant Consent Form relating to this research project.
Practice Maze:
Task Maze:
Appendix G. Demographic Survey

**Demographic Information:**

The following includes basic demographic questions and will ask you to describe yourself and your background.

- How old is your child?
- What gender is your child?
- How old are you?
- What is your gender?
- What is your relation to your child?
- How would you describe your ethnicity?
- In what country were you born?
- What is your current employment status? (e.g., full-time/part-time/casual/unemployed)
- What is your approximate family yearly income? (gross/before tax)
- What is the highest level of education that you have completed?
- What kind of school does your child attend? (public/private/other)
Appendix H. Unreported Data – Chapter 4 and 5

The current thesis originally planned for Chapter 6 to examine the effect of inflated praise on children high in GN and VN. To date, research in this area has measured narcissism using the Childhood Narcissism Scale (CNS), which is a unidimensional scale composed of GN items. Inflated praise (IP) given by a prestigious stranger has been found to decrease challenge-seeking in children with low self-esteem, but increase challenge-seeking in kids with high self-esteem (Brummelman et al., 2014). Furthermore, IP given by parents predicted lower self-esteem in children over time, and predicted narcissism over time for children with initial high self-esteem (Brummelman et al., 2017). Finally, modest praise caused blushing in children high in narcissism that they later denied, but IP did not (Brummelman et al., 2018). Prior to commencing the research reported in Chapter 6, we collected preliminary exploratory data in Chapters 4 and 5.

Chapter 4.

During data collection for Chapter 4, \( N = 147 \) parents were asked: “Please describe what you would say to your child in the following scenarios. E.g., good work; you did incredibly well; you are amazing; or no response. You have a maximum of 30 characters.” Four scenarios were described; two in which the child may be experiencing ego-threat (e.g., Your child is learning something new [e.g., a song on piano, assemble a toy, finish their homework], and is not getting through it easily. What would you say?), and two in which the child may not be experiencing ego-threat (e.g., Your child presents you with something he/she has done before [e.g., a drawing, a performance, homework]. What would you say?)

Following previous research in this area, praise was considered ‘inflated’ when it contained an adverb (e.g., incredibly) or adjective (e.g., perfect) signaling an overly positive evaluation (Brummelman et al., 2014). Instances of IP were summed across the four scenarios to
create an IP score (range 1-4). Bivariate correlations determined that IP was not significantly correlated with CNS, NSC-GN, or NSC-VN. Moderated regression analyses were then conducted with each narcissism dimension as the outcome variable, and self-esteem, IP and an interaction term between self-esteem and IP as predictor variables. Neither the CNS, NSC-GN, nor NSC-VN regressions demonstrated an effect of IP.

**Chapter 5.**

During data collection for Chapter 5, \((N = 124)\) parents were asked: “We would like to understand how and when parents praise their children. Please select the response that comes closest to what you would say to your child in the following scenarios.” Six scenarios were described, this time parents were given four response options for each scenario ranging from no to inflated praise (e.g., *I would not praise my child* = 1, *You’re doing well* = 2, *You’re doing very well* = 3, and *You’re doing incredibly well* = 4).

Responses to the four options were averaged. IP was not correlated with NSC-GN or NSC-VN. Interestingly, IP was correlated with Parental Overvaluation (POV), \(r = .20\ p = 0.25\) and with Parental Warmth \(r = .19, p = 0.04\). Moderated regression analyses were conducted and neither NSC-GN nor NSC-VN regressions showed a significant effect of IP on child narcissism.

**Summary**

In both studies, we failed to replicate Brummelman et al.’s (2014) results and found no relationship between IP given by parents and child narcissism (GN or VN). As a result of these findings, it was decided not to continue to investigate IP given by parents. In light of the results of Chapter 4 and 5 that found NSC-VN to be related to parental psychological control (PC) and child avoidance temperament (rather than POV and IP), Chapter 6 was reconceptualised to be an investigation of temperament and reactivity to shame in children.
Appendix I. Unreported Data – Chapter 6

In this research, GN was positively associated with approach temperament (Chapter 2) and POV (Chapter 5). On the other hand, VN was positively associated with avoidance temperament (Chapter 2) and PC (Chapter 5). These findings indicate that GN may be sensitive to rewards, while VN may be sensitive to punishments. To explore these associations, Chapter 6 was conceptualised to investigate two hypotheses: 1) that GN and VN would be related to reactivity to ego-threat (current Chapter 6), and 2) that GN and VN would show sensitivity to reward and punishment as measured by their reaction time (RT) and heart-rate variability (HRV).

Hypothesis 2 was examined using the Revised Point Scoring Reaction Time Task for Children (PSRTT-C; Colder et al., 2011). In Colder et al.’s (2011) study using the PSRTT-C, approach temperament was measured using the change in RT from the reward/no-reward blocks. In their study, approach temperament were associated with lower RTs in response to reward and higher error rates. As expected, engagement of response conflict slowed down responding and increased error rates. There was also a negative association between reward RT and high levels of HR reactivity. Rhodes and Colder et al. (2013) also used the PSRTT-C to show that low approach motivation was associated with high levels of depressive symptoms and low self-regulation (characteristics of VN). They also found that high approach temperament was associated with high levels of rule breaking (characteristics of GN).

The same computer task as described by Colder et al. (2011) was conducted for this thesis, and HRV was measured in children ($N = 118$). However, in our experiment we did not find a significant difference in mean RT between reward/no-reward blocks. Thus, the task manipulation failed to replicate the basic task effect. This suggests it was not a valid measure and was unable to test the hypothesised associations. Subsequently, only hypothesis 1 was reported.
When Every Child is Special: Towards Understanding Grandiose and Vulnerable Narcissism in Children.

Kate L. Derry, Jeneva L. Ohan, Donna M. Bayliss

School of Psychology, University of Western Australia.

BACKGROUND

Narcissism in adults is composed of two distinct prototypical types: grandiose and vulnerable narcissism. Grandiose Narcissism (GN) — also known as overt, rich, self-aggrandized, exhibitionistic, or grandiose narcissism. Vulnerable Narcissism (VN) — also known as covert; this clinical, hypervigilant, and insecure.

The origin of GN in children has been relatively underresearched. However, there has been no empirical investigation of VN in children, and it is unclear how this type of narcissism might manifest in children, or how it develops. The aim of this study is to examine the development of narcissism, and its apparent influence of the child narcissism literature to data.

REFERENCES


STUDY 1

AIMS: To evaluate the presence of narcissism in children and to investigate whether GN and VN are separate factors in children.

METHOD: 248 children (65 girls, 183 boys, age range 7-12 years; mean = 8.69, SD = 1.30) and 328 parents completed an online survey. A shortened version of the Narcissism Scale was constructed to provide a scale of items targeting grandiose and vulnerable narcissism descriptions.

RESULTS: Partial confirmatory factor analysis supported a two-factor solution (GM = .81, TLI = .90, CFI = .90, SRMR = .04, RMSEA = .032). Validity confirmed by significant results. The hypothesis aligned with GN and VN descriptions of the self-report measure. GN and VN in children differed in their relationship to external trait evaluation, and emotional empathy. Therefore, there were promising associations with grandiose narcissism and VN, but not as well as with grandiose narcissism.

STUDY 2

AIMS: To determine if parenting and parent-child interactions are associated with GN and VN in children.

METHOD: 192 children (90 girls, 102 boys; age range 7-12 years; mean = 8.60, SD = 1.39) and their parents completed an online survey. The survey included measures of parent-child interactions and temperament that have been implicated in the development of narcissism, as well as the parent education level in Study 1.

RESULTS: Multivariate regression analysis indicated that both child temperament and parenting style were significant predictors of child narcissism. Factor D1. The research replicated the parent finding in Study 1, and found VN to be associated with parent psychological control. Further, VN was associated with avoidance temperament and GN was associated with approach temperament.

CONCLUSION

Study 1 addresses children of humanist research to date by investigating and contrasting the existence of VN in children. The effectiveness between GN and VN was found to be crucial in different child and parentings contexts. These findings can be used to establish the necessity to be empathic and cooperative with VN in children, as well as acceptable and understanding. By measuring VN in the correct way, the teacher can understand the child's potential and work towards improvement.

STUDY 2

Aim: To examine the relationship between parent-child interactions and child narcissism.

Method: The study included measures of parent-child interactions and temperament that have been implicated in the development of narcissism.

Results: The study replicated the previous finding in Study 1 and found VN to be associated with parent psychological control. Further, VN was associated with avoidance temperament and GN was associated with approach temperament.

Conclusion: These findings can be used to establish the necessity of empathy and cooperation with VN in children. The effectiveness between the two types of narcissism is crucial in different child and parenting contexts.