Validation of Employment Interview Questions to Identify Narcissism

A Thesis submitted to the faculty of
San Francisco State University
In partial fulfillment of
the requirements for
the Degree

Master of Science

In
Psychology: Industrial/Organizational Psychology

by
Sharon Pidakala
San Francisco, California

May 2021
Certification of Approval

I certify that I have read Validation of Employment Interview Questions to Identify Narcissism by Sharon Pidakala, and that in my opinion this work meets the criteria for approving a thesis submitted in partial fulfillment of the requirement for the degree Master of Science in Psychology: Industrial/Organizational Psychology at San Francisco State University.

________________________________________

Kevin Eschleman, Ph.D.
Associate Professor,
Thesis Committee Chair

________________________________________

Chris Wright, Ph.D.
Professor
Narcissism may be on the rise within western societies and employers seeking to identify applicants higher in narcissism are likely to struggle because self-report narcissism captures a distorted favorable self-view. This paper leverages on employment interview questions to solicit behavioral content either higher or lower in narcissism. Across three studies, the Narcissism Interview Scale (NIS) was developed and evaluated for the purpose of being used in applied selection settings. Results from 458 ratings provided five lines of evidence regarding the usage of the NIS. First, the NIS was narrowed down to the best potential items for usability. Second, content validity was established as the NIS converged with self-report narcissism from $r = .33$ to $.43$. Third, convergent validity was established for the most part as the NIS correlated with personality correlates in a similar fashion to self-report narcissism. Fourth, the NIS significantly predicted an outcome variable of narcissism as expected; $r = .22$. Fifth, inter-rater reliability of $r = .74$ was established across the 10 raters for Study 2. Implications, limitations, and directions for future research on the usability of the NIS in applied settings are discussed.
Preface and/or Acknowledgements

Throughout the writing of my thesis, I received a great deal of support and assistance for which I am indebted to.

I would first like to thank my Thesis Committee Chair, Dr. Kevin Eschleman, whose expertise was invaluable in formulating and validating the employment interview questions in this study. Your insightful feedback throughout the process pushed me to sharpen my thinking and brought my work to a much higher level.

I would like to acknowledge my secondary raters who put in their valuable time into rating participants for this study. Achieving interrater reliability for the Narcissism Interview Scale would not have been possible without them. I would also like to acknowledge my second Committee Chair, Dr. Chris Wright, for his valuable insights and guidance throughout the study.

In addition, I would like to thank my loved ones for their unwavering support and encouragement throughout the time of my study.
# Table of Contents

List of Tables ....................................................................................................................... VIII

List of Appendices .................................................................................................................. ix

Introduction ...............................................................................................................................1
  Narcissism as a Personality Trait .............................................................................................2
  Self-report Measurement of Narcissism ...................................................................................3
  Structured Interviews and Personality ....................................................................................4
  Structured Interviews and Narcissism ....................................................................................7
  Convergence with Narcissism Self-report ..............................................................................8
  Personality Correlates of Narcissism .....................................................................................8
    Five Factor Model Traits .......................................................................................................9
    Self-deception ......................................................................................................................13
  Outcomes of Narcissism ........................................................................................................13

Study 1 .....................................................................................................................................16
  Method .................................................................................................................................. 16
    Participants and Procedure ................................................................................................. 16
    Measures .............................................................................................................................................. 17

Study 2 .....................................................................................................................................23
  Method .................................................................................................................................. 23
    Participants and Procedure ................................................................................................. 23
    Measures .............................................................................................................................................. 23
  Results .................................................................................................................................. 25
    Item Evaluation .................................................................................................................... 25
    Scale Evaluation – Narcissism Interview Scale (NIS) ............................................................. 28

Study 3 .....................................................................................................................................32
  Method .................................................................................................................................. 32
    Participants and Procedure ................................................................................................. 32
    Measures .............................................................................................................................................. 32
  Results .................................................................................................................................. 33
    Scale Evaluation – Narcissism Interview Scale (NIS) ............................................................. 33

General Discussion ..................................................................................................................36
  Summary of Findings ............................................................................................................. 36
  Practical Implications ............................................................................................................. 39
Limitations ................................................................. 41
Future Directions .......................................................... 42

References ........................................................................ 46
List of Tables

Table 1. Descriptive Statistics and Convergent Validity Coefficients for Potential Narcissism Interview Items (Study 1) ................................................................. 21

Table 2. Inter-item Correlations Between Potential Narcissism Interview Items (Study 1) 22

Table 3. Descriptive Statistics and Convergent Validity Coefficients for Potential Narcissism Interview Items (Study 2) ................................................................. 27

Table 4. Inter-item Correlations Between Potential Narcissism Interview Items (Study 2) 28

Table 5. Descriptive Statistics and Correlations for Variables (Study 2) ......................... 31

Table 6. Narcissism Interview Scale Score Frequencies (Study 2) .................................. 31

Table 7. Narcissism Interview Scale Score Frequencies (Study 3) .................................. 35

Table 8. Descriptive Statistics and Correlations for Variables (Study 3) ......................... 35
List of Appendices

Appendix A: Brain Teasers .................................................................55
Appendix B: Content Validity Coding Results of Items from the NIS .................................56
Appendix C: Scoring Instructions ........................................................................57
Appendix D: Score Guide – Item 1 ..................................................................58
Appendix E: Score Guide – Item 2 ..................................................................59
Appendix F: Score Guide – Item 3 ..................................................................60
Appendix G: Score Guide – Item 4 ..................................................................61
Appendix H: Score Guide – Item 5 ..................................................................62
Introduction

Between good and bad, bad has stronger effects than good (Baumeister et. al., 2001). Similarly, in a workplace setting, the effect from bad apples last longer and result in weighted consequences for the company (Berry et. al., 1997). Therefore, employers are constantly trying to improve the selection process to avoid hiring potential bad apples (Hunt, 2007). A key driver of success in an organization is to maintain coordination and adaptability (Bedwell, Fiore & Salas, 2014) and as bad apples rise in power, conflicting interactions start to occur (Bedwell, Fiore & Salas, 2014; Manne, 2003). Narcissism is a trait that is indicative of a bad apple as they too have difficulty maintaining healthy interpersonal relationships (Campbell et. al., 2004). Their most salient behaviors include constantly having a negative and differing outlook, refusing to contribute effort in collaborative tasks and behaving in ways that would defy group norms (Felps et. al., 2006; Watson & Clark, 1984). Unfortunately for workplaces, narcissism may be on the rise within western societies (e.g., Twenge & Foster, 2008; 2010), which would lead to an influx of workers higher in narcissism.

Employers seeking to screen out applicants higher in narcissism are likely to struggle because high narcissism includes characteristics that are likely to lead to inaccurate assessments by oneself and others. Narcissism is associated with self-deception (Hart et al., 2015), self-enhancement tendencies (Grijalva & Zhang; 2016), and inflated views of their performance (Judge, LePine, & Rich, 2006), which indicates self-report narcissism will capture a distorted favorable self-view. Narcissism also has a strong positive correlation with dominance/control (Given-Wilson, McIlwain, & Warburton, 2011), which may be mistook by others as confidence
and drive. Collectively, these characteristics are likely to result in employers being attracted to and hiring applicants higher in narcissism.

To address the accuracy concerns of measuring narcissism in a selection setting, this study leverages the employment interview setting. Prior research has demonstrated that some characteristics of narcissism can be observed using snap judgements with limited informational cues (Vazire, Naumann, Rentfrow, & Gosling, 2008). In addition, researchers have demonstrated that structured interview questions can be used to target personality traits (Barrick, Patton, & Haugland, 2000; Huffcutt, Conway et al., 2001; Van Iddekinge, Raymark, & Roth, 2005). Thus, this study uses structured employment interview questions to solicit behavioral content either higher or lower in narcissism. Across three studies, the Narcissism Interview Scale was developed and evaluated for the purpose of being used in applied selection settings to identify narcissistic applicants.

**Narcissism as a Personality Trait**

Narcissism is a personality trait that is stable overtime (Vater et al., 2014). The term narcissism comes from the mythical Greek character Narcissus, who fell in love with his own image reflected in the water. In extreme cases, narcissism can be a clinical disorder (APA, 2000), however, it is also widely studied as a personality trait in non-clinical populations (Campbell & Miller, 2011). The narcissistic personality is characterized by inflated views of the self; that encompass dimensions of superiority, authority, self-absorption and exploitativeness (Raskin & Hall, 1979). Narcissistic individuals have an exceptionally positive view of themselves, and the narcissistic personality is associated with a complex configuration of intrapersonal and
interpersonal outcomes (Morf & Rhodewalt, 2001) – which sum up to disrupt adaptability and cooperation in a workplace.

**Self-report Measurement of Narcissism**

The most widely used measure of assessing narcissism is the standardized self-report Narcissistic Personality Inventory (NPI) by Raskin and Terry (1988). The original version of the NPI (Raskin & Hall, 1979) was developed from the description of Narcissistic Personality Disorder (NPD) anticipated to be included in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III; American Psychiatric Association, 1980). Raskin and Hall (1979) developed 223 rationally keyed items to capture the attributes associated with NPD which measures grandiose or overt aspects of narcissism. They used a forced-choice response format such that participants had to choose between a narcissistic alternative and a non-narcissistic alternative for each item (e.g., “I really like to be the center of attention” vs. “It makes me uncomfortable to be the center of attention”; Raskin & Hall, 1979, p. 590). Raskin and Hall (1979) later refined the item pool to the 40-item forced-choice measure that is widely used today (Raskin & Terry, 1988). The NPI has an internal reliability of .83 (Raskin & Terry, 1988) and the full scale also has high test-retest reliability; \( r = .81 \) (del Rosario & White, 2005). However, with the concern in mind that the 40-item NPI could be too long and burdensome to give participants, researchers also attempted to develop and validate a single-item, self-report measure of narcissism that taps into both grandiose and vulnerable aspects of the narcissistic personality (Konrath, Meier & Bushman, 2014). The item on the Single-Item Narcissism Scale (SINS) is worded as follows: “To what extent do you agree with this statement: I am a narcissist. (Note: The word ‘narcissist’ means egotistical, self-focused, and vain.).” Including the definition helped
increase the correlation between the SINS and the NPI \((r = .40, p < .001)\) (Konrath, Meier & Bushman, 2014).

Be it the NPI-40, the NPI-16 or the SINS, they are all standardized self-report scales and are the most common methods to measure narcissism. Some of the major concerns with self-reports is that there is room for faking (Hogan et al. 2007) and that corrections for faking do not appear to improve validity (Fan et al., 2012). Self-report narcissism, in particular, also has high face validity and would subjectively be viewed by applicants as a method by the employer to identify narcissism, which applicants know is not a particularly desired personality trait.

**Structured Interviews and Personality**

There are two types of interviews, unstructured interviews and structured interviews. Unstructured interviews allow for a free-flowing conversation between the interviewer and the interviewee, and there are no prior parameters for any specific criteria to be measured and for the relative depth of the conversation (Mueller & Segal, 2014). This unstructured approach provides ample opportunities for gathering general information about the interviewee and a relatively rich sense of the interviewee’s background and ideas, rather than an exclusively stringent focus on the interviewee’s knowledge, skills and abilities (Mueller & Segal, 2014). Structured interviews on the other hand, conform to a standardized list of questions with a uniform sequence of questioning with systematized ratings for the interviewee’s responses. (Mueller & Segal, 2014). In structured interviews, the standardized questions are designed to measure the specific criteria domain needed for the job (Segal & Coolidge, 2003).

These essential elements of structured interviews serve several important purposes. Most notably, their use increases the coverage of many requirements that otherwise might be
overlooked in a less standardized approach. The systemized ratings enhance the interviewer’s ability to accurately determine whether particular skills are present or absent, and reduces variability among interviewers (Mueller & Segal, 2014). Taken together, these elements serve to increase reliability, or replicability, of the interview process. Though there is structure in structured interviews which limits a free flowing conversation between the interviewer and the interviewee, structured interviews can still assess personality if the questions are developed with the purpose of assessing the personality construct you are intending to measure. Moreover, structured interviews generally have higher validity than unstructured interviews (Wiesner & Cronshaw, 1988).

Although personality is typically assessed with self-report measures (Hough & Ones, 2001), there are a number of empirical studies that have used structured employment interviews to assess personality (Barrick, Patton, & Haugland, 2000; Huffcutt, Conway, Roth, & Stone, 2001; Van Iddekinge, Raymark & Roth, 2005).

Barrick, Patton and Haugland (2000) investigated whether interviewers can assess Big Five personality traits during job interviews. The results from their study demonstrated that interviewer ratings of applicant personality converge with applicant self-ratings by $r = .28$ and revealed that the accuracy of those ratings varied by trait, with extraversion and conscientiousness reflecting the highest agreement and emotional stability, the lowest. They recommend that interview questions be developed with the purpose of assessing the personality construct intended to measure to yield better results.

Van Iddekinge, Raymark and Roth (2005) assessed personality via structured interviews because they wanted to evaluate the extent to which personality-based structured interviews were
susceptible to response inflation. Interview questions were developed to measure facets of agreeableness, conscientiousness, and emotional stability from the Big Five. Results found correlations between the self-reports and interviewer ratings for agreeableness, conscientiousness, and emotional stability that ranged from $r = .10$ to $r = .33$. These moderate correlations between interview and self-report personality ratings provided some evidence that structured interviews can be developed to assess facets of personality in a simulated selection setting.

Huffcutt et. al. (2001) developed a comprehensive taxonomy of seven types of constructs that interviews could assess. The mapping process between psychological constructs and interview dimensions found that personality (35%) and applied social skills (28%) were the most frequently rated constructs. Their study also revealed that structured interviews tend to have higher validity because they represent more reliable assessment of responses (Conway et. al., 1995) and they focus more on constructs that have a stronger relationship with job performance (Huffcutt et. al., 2001). This suggests the idea of using structured interviews to assess personality traits and interpersonal skills that have direct impact on job performance.

Put into context, the interview method could lead to a more accurate assessment of the personality variable – narcissism – if done in a systematic way with structured interviews, where the individual has to answer narcissism-related questions by drawing upon situational and behavioral experiences they have engaged in across time and across different situations (Pavot et al., 1991). Self-report narcissism is likely to lead to empirical results that do not coincide with the conceptualization of the narcissism construct because narcissists tend to have inaccurate self-views. The NIS relies upon both the conceptualization of the narcissism construct and self-report
empirical findings to make predictions for relationships with the NIS. The purpose with which the NIS is designed and the structure that is required from the responses to these questions thus also reduces the possibility of faking that comes from a self-report (Dodaj, 2012).

**Structured Interviews and Narcissism**

One study begun the validation effort to develop structured interview questions to assess narcissism (White, 2020). White (2020) developed structured interview questions that were designed to elicit behavioral responses relevant to narcissism. White developed the questions using subject matter experts (e.g., clinical psychologists, I/O psychologists), social psychology definitions of narcissism, and empirical research referencing behavioral manifestations of narcissism. In the study, participants completed mock interviews in an asynchronous video format. White (2020) evaluated the nineteen original items on frequency of narcissism content and clarity of narcissism content. To rate for narcissism content, quotes and contextual cues were recorded to develop customized scoring guides for each item. The scoring guides in White’s (2020) study were intended for future validation research of the items in an effort to finalize an employment interview scale for narcissism.

The current study identified 5 of the top performing items from White (2020) to be further evaluated. These 5 items were selected because the behavioral prompt emphasized interpersonal scenarios with colleagues. Although applicant and employer reactions to the interview items was not a part of the current study, I believe behavioral prompts about leadership and followership will be viewed by applicants and employers as both job-relevant and narcissism-relevant.
Convergence with Narcissism Self-report

The narcissism interview items retained by White (2020) should converge with self-report narcissism ratings. However, given the limitations of self-report narcissism, I expect these relationships to be moderate in strength. Research regarding counterproductive work behavior provides some insight into the expected convergence between self-report and non-self-report of a socially undesirable trait. Counterproductive work behavior self-report and other-report correlate moderately in strength (e.g., $r = .35$; Berry, Carpenter, & Barratt, 2012). In addition, prior research by Van Iddekinge, Raymark and Roth (2005) using structured interview methods to assess personality found weak to moderate empirical convergence between self-report and interview ratings of personality that ranged from $r = .10$ to $r = .33$. Therefore, I expect the narcissism interview items to positively correlate with self-report narcissism, but this relationship will be weak to moderate in strength. In addition, I expect the narcissism interview items to more strongly converge with self-report narcissism that other self-report traits.

Hypothesis 1: The narcissism interview scale will have a positive correlation with narcissism self-report.

Hypothesis 2: The relationship between the narcissism interview scale with narcissism self-report will be stronger than the relationship between the narcissism interview scale and self-reports of other personality traits (i.e., Five Factor Model traits, self-deception).

Personality Correlates of Narcissism

Correlates of narcissism have primarily been tested using self-report narcissism (Hendin & Cheek, 1997). Unfortunately, self-report narcissism scales can only provide some insight into the nomological network of narcissism because those higher in narcissism have distorted self-
views (e.g., Grijalva & Zhang; 2016; Hart et al., 2015; Judge, LePine, & Rich, 2006). In the following section I review the conceptual overlap between narcissism and other personality traits. In addition, I explain if the empirical findings using self-report narcissism scales align with theory of narcissism.

**Five Factor Model Traits**

A common framework used to measure personality is the Five Factor Model Traits also known as the “Big Five” which is a self-report survey by Costa and McCrae (1988). The five personality dimensions measured are; conscientiousness, extraversion, agreeableness, openness, and emotional stability, and openness (McCrae & Costa, 1987; Costa & McCrae, 1988). Paulhus and Williams (2002) argued that narcissism is not reflected well within the Big Five. The degree of conceptual and empirical overlap will depend upon the FFM trait.

Narcissism has conceptual overlap with conscientiousness. The basic tendencies of conscientiousness involve a strong sense of purpose and high aspiration levels (Costa & McCrae, 1988). A few characteristic adaptations of conscientiousness include; leadership skills and detailed long-term plans (Costa & McCrae, 1988). There is a conceptual overlap between narcissism and conscientiousness because narcissists are aggressive achievers (Bushman & Baumeister, 1998) and conscientious people too, strive for achievement. Despite the conceptual overlap between narcissism and conscientiousness, there is little evidence for an empirical relationship. For example, prior research has found non-significant correlations between conscientiousness and self-report narcissism; $r = .05, p > .05$ (Clark, Lelchook & Taylor, 2010), $r = .14, p > .05$ (Bradlee & Emmons, 1992). Based on the conceptual overlap between the two variables, I expect the NIS to be positively correlated with conscientiousness.
Hypothesis 3: The narcissism interview scale will have a positive relationship with conscientiousness.

Narcissism has conceptual overlap with extraversion. The basic tendencies of extraversion involve a preference for companionship and social stimulation (Costa & McCrae, 1988). A few characteristic adaptations of extraversion include; social skills and numerous friendships (Costa & McCrae, 1988). Extraverts orient their energies toward the outer world of people and often emerge as leaders in social settings. There is a conceptual overlap between narcissism and extraversion because narcissists believe they are entitled to the admiration and respect of others (Baumeister, Smart & Boden, 1996), which results in the pursuit of leadership roles. Prior research involving self-report narcissism is consistent with the expected overlap between the two constructs. For example, self-report narcissism has a consistent positive correlation with extraversion; $r = .43, p < .01$ (Bradlee & Emmons, 1992), $r = .47, p < .01$ (Clark, Lelchook & Taylor, 2010), $r = .38, p < .01$ (Hart, Tortoriello & Rischarldson, 2019). Based on the conceptual overlap between the two variables, I expect the NIS to be positively correlated with extraversion.

Hypothesis 4: The narcissism interview scale will have a positive relationship with extraversion self-report.

Narcissism has conceptual overlap with agreeableness. The basic tendencies of agreeableness involves a willingness to defer to others during interpersonal conflict (Costa & McCrae, 1988). A few characteristic adaptations of agreeableness include; forgiving attitudes, accommodations for others, and belief in cooperation (Costa & McCrae, 1988). There is a conceptual relationship in terms of “readiness to accommodate” between narcissism and
agreeableness. Narcissists have difficulty in maintaining healthy interpersonal relationships (Campbell et. al., 2004), and are not usually accommodating to social situations. Prior research involving self-report narcissism is consistent with the expected overlap between the two constructs. For example, self-report narcissism has a consistent negative correlation with agreeableness; $r = -.35, p < .01$ (Bradlee & Emmons, 1992), $r = -.11, p < .05$ (Clark, Lelchook & Taylor, 2010), $r = -.22, p < .05$ (Furnham, Hughes & Marshall, 2013), $r = -.19, p < .01$ (Hart, Tortoriello & Rischardson, 2019). Based on the conceptual overlap between the two variables, I expect the NIS to be negatively correlated with agreeableness.

**Hypothesis 5:** The narcissism interview scale will have a negative relationship with agreeableness.

Narcissism does not have a clear conceptual overlap with emotional stability. Emotional stability primarily represents infrequent experiences of negative emotions (e.g., anger, anxiety), but can also include demonstrations of moderation in one’s actions, low self-consciousness, and low emotionality even under stressful circumstances (Costa & McCrae, 1988). Although higher narcissism is associated with exceptionally positive self-views (Morf & Rhodewalt, 2001), which can indicate higher emotional stability, narcissism also can involve strong negative emotional reactions. Overall, narcissism has characteristics of both high and low emotional stability indicating a likely null relationship between the two variables. Prior research involving self-report narcissism demonstrates a consistent positive correlation between narcissism self-report and emotional stability; $r = .19, p < .05$ (Bradlee & Emmons, 1992), $r = .16, p < .01$ (Clark, Lelchook & Taylor, 2010), $r = .25, p < .05$ (Furnham, Hughes & Marshall, 2013) and $r = .21, p < .01$ (Maciantowicz & Zajenkowski, 2018). I believe this empirical relationship involving self-
report narcissism is inconsistent from the narcissism construct due, in part, to the inability to properly measure narcissism with self-report. I expect that the relationship between the NIS and emotional stability will be weaker than the relationship between self-report narcissism and emotional stability.

*Hypothesis 6: The relationship between the narcissism interview scale with emotional stability will be weaker than the relationship between narcissism self-report and emotional stability.*

Narcissism does not have a clear conceptual overlap with openness. The basic tendencies of openness involves a need for variety, novelty and change (Costa & McCrae, 1988). Openness, however, is often measured with items or factors representing adventure, artistic interests, an interest in abstract ideas, liberalism, intense emotional experiences, and understanding of others emotions (Goldberg et al., 2006). Only aspects of intense emotional experiences overlap with the narcissism construct, indicating an overall weak conceptual overlap. Prior research involving self-report narcissism has included both significant and non-significant relationship, but all trending toward the positive direction; $r = .10, p > .05$ (Bradlee & Emmons, 1992), $r = .24, p > .05$ (Lee & Ashton, 2005), $r = .13, p < .01$ (Hart; Tortoriello & Rischardson, 2019) and $r = .20, p < .01$ (Clark, Lelchook & Taylor, 2010). I believe this empirical relationship involving self-report narcissism is inconsistent from the narcissism construct due, in part, to the inability to properly measure narcissism with self-report. I expect that the relationship between the NIS and openness will be weaker than the relationship between self-report narcissism and openness.

*Hypothesis 7: The relationship between the narcissism interview scale with openness will be weaker than the relationship between narcissism self-report and openness.*
Self-deception

Narcissism has conceptual overlap with self-deception. Self-deception is a factor of social desirability and represents a tendency to give honest but positively biased reports: a non-conscious inclination to perceive oneself favorably. The propensity of self-deception is also a characteristic of individuals high in narcissism (Campbell, Goodie, & Foster, 2004; Greenberger, Chen, Dimitrieva, & Farrugia, 2003) as narcissists engage in overly positive responding to put themselves in a favorable light, have inflated views of themselves and view themselves on a high regard (Raskin & Hall, 1979). Prior research involving self-report narcissism is consistent with the expected overlap between the two constructs. For example, self-report narcissism has a negative correlation with self-deception; \( r = .26, p < .01 \) (Hart et al., 2015). It is important to note that self-report narcissism is likely to have a stronger relationship with measures of social desirability in high stakes settings (e.g., real job interviews) due to faking, but faking is beyond the scope of the current study. I expect that the NIS will be positively associated with self-deception.

Hypothesis 8: The narcissism interview scale will be positively associated with self-deception.

Outcomes of Narcissism

Narcissism is associated with many negative outcomes such as being prone to defensive and self-protective strategies (Morf & Rhodewalt, 2001). When narcissistic people are faced with threats to their self-worth, concepts of worthlessness are immediately activated, and then quickly suppressed (Horvath & Morf, 2009). In addition, after receiving negative evaluations they are likely to see problems with the evaluation technique or the evaluator rather than reflect on how to
improve (Kernis & Sun, 1994). Narcissists also have difficulty maintaining healthy interpersonal relationships (Campbell et. al. 2004), perhaps because of their relatively low empathy (Watson et. al., 1984). Narcissists believe that they are entitled to the admiration and respect of others, and, when they do not get it, become angry and aggressive (Baumeister, Smart & Boden, 1996). Laboratory studies by Bushman and Baumeister (1998) found that individuals high in narcissism were aggressive towards their competitors. In each of these studies, narcissists opted to aggress against individuals perceived as the source of ego threat. According to Anderson (1994), the amount of esteem available in a group hierarchy is fixed and therefore, in order for one to gain esteem it must be taken from another. Hence, narcissists are not a good fit in organizations where group hierarchies and esteem levels are fixed.

Campbell, Goodie and Foster (2004) conducted research to address whether narcissists were more confident than others. Narcissists’ grandiose self-views may preclude the realistic appraisal of one’s likelihood of success, resulting in overconfidence and risk-taking. Individuals higher up the narcissism scale are more likely than others to be overconfident in their judgments. They presented research that addressed how narcissists are more overconfident than others and that their overconfidence does lead to poor decision making. In their study, they used the NPI to predict the outcome variable of overconfidence and found that narcissism was in fact, a significant predictor of overconfidence; \( r = 0.28, p < .01 \).

“Brain Teasers” developed by Highhouse, Nye and Zhang (2019) aim to measure overconfidence in individuals. These brain teasers are questions that have no right answers. For example, “How many gas stations are there in the US?”. If participants believe that they are a hundred percent accurate in their answers, it would indicate overconfidence because they choose
to believe that they are superior (Raskin & Hall, 1979) in knowing something most others may not. I expect the NIS to be positively associated with overconfidence.

**Hypothesis 9:** The narcissism interview scale will be positively associated with overconfidence.

Three studies were conducted to build and evaluate a narcissism interview scale. Study 1 identified the top performing items using an undergraduate sample and mock interview exercise. Study 2 was used to replicate the results of Study 1 and identify the retained items for the total scale. Study 2 evaluated the interview scale, also using an undergraduate sample and mock interview exercise. Study 3 evaluated the interview scale in an applied setting using a sample of applicants who were interviewed for a position within a graduate program.
Study 1

Method

Participants and Procedure

For Study 1, I had a total of $N = 207$ participants. On average, participants were 20 years old. The sample was comprised of 74% female, 22% male, 4% gender queer non-conforming and transgender, 45% Latin or Hispanic American, 31% Asian American, 24% Caucasian American, 7% African American, 5% Native American, 9% European, and 4% Middle Eastern or North African. Participants were students at a large public university on the west coast of the United States and had either 3 or 4 semesters left until graduation.

Participants were enrolled in a career development course and all data were collected as part of course activities. Students in the course were asked after the course was completed if they would share their data for research purposes (88% agreed to share their data). A self-report personality survey was administered at the start of the semester as part of a self-exploration activity to identify person-career fit. Two months later participants completed a mock-interview over a one-way video platform, with the purpose of developing interview skills. Participants received video training about best practices during an employment interview (e.g., eye contact, professional attire) and common interview formats (e.g., one-way video, behavioral scenarios) prior to data collection. Participants were instructed to complete the interview in one sitting, but were granted unlimited time to prepare their response after a question was presented and were permitted to re-record their responses unlimited times. Although no time limit was given for each response, participants were advised to keep response duration between 30 seconds to 90 seconds per question to avoid rambling.
Measures

Narcissism Interview Items. I selected five items from White (2020) to further evaluate them for potential inclusion in the final narcissism interview scale. The five items selected were from White prompted discussion about interpersonal behavior and were identified by White as the top performing items. The five items were:

1. “Do you consider yourself a natural born leader or someone who has had to learn how to lead? Please provide an example of your leadership approach.”

2. “Imagine you were working on a team that requires unanimous consent to move forward on a project. The other members have agreed upon a plan for the project that you strongly disagree with. How do you proceed?”

3. “Imagine you were working on a team that requires unanimous consent to move forward on a project. The other members have agreed upon a plan for the project that you strongly disagree with. How do you proceed?”

4. “Describe a time in which you had authority over other people. What was your approach to leading?”

5. “Describe a time you were in a team setting and the group was successful. What were the primary reasons the group succeeded?”

A revised version of the scoring guide from White (2020) was used to evaluate each interview question. The rating guide included a general rating instruction sheet (see Appendix C) and scoring guides specific to each item (see Appendix D to Appendix H). The scoring guides were modelled after a behavioral anchored rating scale by including quotes and contextual cues for either lower or higher narcissism responses. Each scoring guide had scoring options of (1)
“very low narcissism,” (2) “slightly lower narcissism” (3) “slightly higher narcissism,” and (4) “very high narcissism.”

A rater training video was also created, which reviewed the measurement of narcissism (e.g., Ames, Rose, & Anderson, 2006; Brown, Budzek, & Tamborski; Foster et al., 2015; Jonason & Webster, 2010; Paulhus & Williams, 2002) and the applicability of narcissism in the workplace (e.g., Grijalva et al., 2015; Higgs, 2009; Resick, Whitman, Weingarden, & Hiller, 2009). A list of narcissism definitions was provided within the training that emphasized the social psychology definition of narcissism rather than the clinical definition of narcissistic personality disorder (Maxwell, Donnellan, Hopwood, & Ackerman, 2011). The training included example video responses taken from White (2020) dataset. An explanation for how the video should be scored was provided after each example video was presented.

One rater evaluated all videos in Study 1 with no knowledge of the participants’ self-report survey results. Ratings were provided by participants rather than by question. In other words, all videos for a participant were rated before proceeding to the next participant. The order in which the questions were rated was randomized for each participant. The rater was allowed to replay videos and adjust ratings at any point, to account for emergent themes and non-verbal cues (e.g., tone, body language, or implicit meaning).

**Narcissism Self-report.** Narcissism self-report was measured with the 16-item short version of the Narcissistic Personality Inventory (Ames, Rose and Anderson, 2006) during the self-report personality survey. Participants were given the instruction to self-reflect upon who they are in general. Each item had a higher narcissism statement and a lower narcissism statement. For each item, participants selected the statement that described them more. Eight of
the items presented higher narcissism statements first whereas the other eight items presented lower narcissism statements first. An example narcissism item included the options of either “I know that I am good because everybody keeps telling me so” (higher narcissism) or “When people compliment me I sometimes get embarrassed” (lower narcissism). The Cronbach’s alpha for the self-report narcissism scale in Study 1 was .63.

Results

I relied upon three criteria to determine the quality of the items. First, I considered the variability in the item scores to ensure scores across the whole spectrum of the rating scale. Second, I tested the inter-item correlations and item-total correlations to determine potential for internal consistency of a final scale. Third, I calculated the correlation strength between the item and with a self-report narcissism. Although a positive correlation is important to demonstrate convergent validity, prior research has found weak to moderate correlation strength between interview scales and self-report scales of personality ($r = .10$ to .33; Iddekinge et al., 2005). In addition, a strong correlation (e.g., $r = .70$) between interview item and self-report scales would indicate that the interview item is not providing unique information from that of a self-report. As a result, I sought items that converged with self-report items with weak to moderate correlation strengths (.10 to .50). Item descriptive statistics and item correlations with self-report narcissism are provided in Table 1. Inter-item correlations and item-total correlations are provided in Table 2.

Items 1 and 2 were the top performing items and met the three item criteria. Item 1 had 29% of scores indicating higher narcissism (score = 3 or 4), a corrected item-total correlation of .22, a correlation magnitude with the NPI of .34. Item 2 had 27% of scores indicating higher
narcissism (score = 3 or 4), a corrected item-total correlation of .21, a correlation magnitude with the NPI of .14.

Items 3 and 4 also performed well, but had less frequent higher narcissism scores than Items 1 and 2. Item 3 had 12% of scores indicating higher narcissism (score = 3 or 4), a corrected item-total correlation of .25, a correlation magnitude with the NPI of .10. Item 4 had 11% of scores indicating higher narcissism (score = 3 or 4), a corrected item-total correlation of .27, a correlation magnitude with the NPI of .19.

Item 5 was identified as a poor performing item based upon all three evaluation criteria. Item 5 had 6% of scores indicating higher narcissism (score = 3 or 4), a corrected item-total correlation of .18, a correlation magnitude with the NPI of .05. Overall, Items 1, 2, 3, and 4 demonstrated potential value for an interview scale in Study 1.
Table 1. Descriptive Statistics and Convergent Validity Coefficients for Potential Narcissism Interview Items (Study 1)

<table>
<thead>
<tr>
<th>Item</th>
<th>Item Description</th>
<th>Mean</th>
<th>SD</th>
<th>Scoring Frequency</th>
<th>NPI r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you consider yourself a natural born leader or someone who’s had to learn how to lead? Provide an example of your leadership approach.</td>
<td>2.00</td>
<td>0.94</td>
<td>37% 34% 21% 8%</td>
<td>.34**</td>
</tr>
<tr>
<td>2</td>
<td>Imagine you are working on a team that requires unanimous consent to move forward on a project. The other members have agreed upon a plan for the project that you strongly disagree with. How do you proceed?</td>
<td>2.13</td>
<td>0.85</td>
<td>21% 52% 20% 7%</td>
<td>.14*</td>
</tr>
<tr>
<td>3</td>
<td>Imagine you are the leader of a group and someone on your team openly expressed their concern with one of your decisions to you and others. It turns out that your decision was the correct call. How would you handle this situation?</td>
<td>1.62</td>
<td>0.71</td>
<td>50% 37% 11% 1%</td>
<td>.10</td>
</tr>
<tr>
<td>4</td>
<td>Describe a time in which you had authority over other people. What was your approach to leading?</td>
<td>1.58</td>
<td>0.70</td>
<td>53% 36% 10% 1%</td>
<td>.19**</td>
</tr>
<tr>
<td>5</td>
<td>Describe a time you were in a team setting and the group was successful. What were the primary reasons the group succeeded?</td>
<td>1.40</td>
<td>1.54</td>
<td>67% 27% 4% 2%</td>
<td>.05</td>
</tr>
</tbody>
</table>

Note. N = 207; SD = standard deviation. NPI r = correlation with the 16-item Narcissistic Personality Inventory self-report.
Table 2. Inter-item Correlations Between Potential Narcissism Interview Items (Study 1)

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Do you consider yourself a natural born leader or someone who’s had to learn how to lead? Provide an example of your leadership approach.</td>
<td>.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Imagine you are working on a team that requires unanimous consent to move forward on a project. The other members have agreed upon a plan for the project that you strongly disagree with. How do you proceed?</td>
<td>.10</td>
<td>.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Imagine you are the leader of a group and someone on your team openly expressed their concern with one of your decisions to you and others. It turns out that your decision was the correct call. How would you handle this situation?</td>
<td>.10</td>
<td>.19**</td>
<td>(.25)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Describe a time in which you had authority over other people. What was your approach to leading?</td>
<td>.23**</td>
<td>.10</td>
<td>.20**</td>
<td>(.27)</td>
<td></td>
</tr>
<tr>
<td>5 Describe a time you were in a team setting and the group was successful. What were the primary reasons the group succeeded?</td>
<td>.10</td>
<td>.13*</td>
<td>.11*</td>
<td>.08</td>
<td>(.18)</td>
</tr>
</tbody>
</table>

*Note. N = 207; Corrected item-total correlations are presented on diagonal in parentheses; *p < .05; **p < .01.*
Study 2

Method

Participants and Procedure

For Study 2, I had a total of \( N = 146 \) participants. On average, participants were 21 years old. The sample was comprised of 76% female, 23% male, 1% gender queer non-conforming and transgender, 47% Latin or Hispanic American, 35% Asian American, 21% Caucasian, 3% African American, 1% Native American, 12% European and 3% Middle Eastern and North African. Participants were students at a large public university on the west coast of the United States and had either 1 or 2 semesters left until graduation. I ensured that all Study 2 participants did not participate in Study 1.

The procedure from Study 1 was replicated in Study 2. Participants were enrolled in a career development course and all data were collected as part of course activities. Students in the course were asked after the course was completed if they would share their data for research purposes (87% agreed to share their data). A self-report personality survey was administered at the start of the semester as part of a self-exploration activity to identify person-career fit. Two months later participants completed a mock-interview over a one-way video platform, with the purpose of developing interview skills.

Measures

Narcissism Interview Items. The same narcissism interview items and instructions from Study 1 were used in Study 2. The same rater (primary rater) from Study 1 provided ratings in Study 2 for all videos and participants.
Nine secondary raters were recruited to establish interrater reliability of the final scale with the primary rater. The secondary raters were two psychology graduate students, five undergraduate students majoring in psychology, and two undergraduate students not majoring in a psychology-related field. The secondary raters were trained using the training described in Study 1. Each secondary rater evaluated a subset of the total sample in an effort to reduce the time commitment (range = 15 to 82 participants) and to ensure all participants were evaluated by at least one secondary rater. On average, a secondary rater evaluated 38 participants. The average across all secondary raters was used to calculate a total scale score for each participant.

**Personality Self-report.** The same narcissism self-report scale and instructions from Study 1 were used in Study 2. The narcissism scale had a Cronbach’s alpha of .55.

Study 2 also included measures of Five Factor Model traits and self-deception. Response options for the measures of Five Factor Model traits and self-deception ranged from (1) “strongly disagree” to (7) “strongly agree.” The Five Factor Model traits were measured with 10 items per trait from the International Item Pool (IPIP, 2019; Goldberg et al., 2006). An example item from the conscientiousness scale was “I am always prepared” and the scale had a Cronbach’s alpha of .81. An example item from the extraversion scale was “I seek to influence others” and the scale had a Cronbach’s alpha of .90. An example item from the agreeableness scale was “I make people feel welcome” and the scale had a Cronbach’s alpha of .67. An example item from the emotional stability scale was “I get irritated easily” and the scale had a Cronbach’s alpha of .88. An example item from the openness scale was “I prefer variety to routine” and the scale had a Cronbach’s alpha of .83. Self-deception was measured with 8 items from Balanced Inventory of Desirable Responding (Hart, Ritchie, Hepper, & Gebauer, 2015). An example item from the
self-deception scale was “I always know why I do things” and the scale had a Cronbach’s alpha of .71.

**Overconfidence.** Overconfidence was measured (Appendix A) within the self-report survey using an adapted version of the “Brain Teasers” scale developed by Highhouse and colleagues (2019). Participants were presented 5 open-ended questions that had no obvious right answers. For each open-ended question, participants are instructed to provide a score range that they were 90% sure would contain the actual value. The questions included: “How many gas stations are there in the united states?” and “How many pounds of ice cream are consumed by Americans each year?” Overconfidence was measured with 1 item after answering the brain teasers. Participants were instructed to rate how accurate their answers were compared to their peers. Response options were (1) “I’m at the very bottom,” (2) “Below Average,” (3) “Average,” (4) “Above Average,” and (5) “I’m at the very top.”

**Results**

**Item Evaluation**

The five potential items were evaluated in Study 2 using the same criteria used in Study 1. Item descriptive statistics and item correlations with self-report narcissism are provided in Table 3. Inter-item correlations and item-total correlations are provided in Table 4.

Items 1, 2, and 3 were the best performing items in Study 2. Item 1 had 23% of scores indicating higher narcissism (score = 3 or 4), a corrected item-total correlation of .56, a correlation magnitude with the NPI of .28. Item 2 had 17% of scores indicating higher narcissism (score = 3 or 4), a corrected item-total correlation of .30, a correlation magnitude with the NPI of
.23. Item 3 had 12% of scores indicating higher narcissism (score = 3 or 4), a corrected item-total correlation of .50, a correlation magnitude with the NPI of .23.

Item 4 also performed well in Study 2, but had a correlation magnitude with self-report narcissism scale below the .10 threshold. Item 4 had 13% of scores indicating higher narcissism (score = 3 or 4), a corrected item-total correlation of .44, a correlation magnitude with the NPI of .09.

Item 5 was identified as a poor performing item in Study 2 based upon all three evaluation criteria. Item 5 had 9% of scores indicating higher narcissism (score = 3 or 4), a corrected item-total correlation of .11, a correlation magnitude with the NPI of -.06. Overall, Items 1, 2, 3, and 4 demonstrated potential value for an interview scale in Study 2.
Table 3. Descriptive Statistics and Convergent Validity Coefficients for Potential Narcissism Interview Items (Study 2)

<table>
<thead>
<tr>
<th>Item</th>
<th>Item Description</th>
<th>Mean</th>
<th>SD</th>
<th>Scoring Frequency</th>
<th>NPI r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you consider yourself a natural born leader or someone who’s had to learn how to lead? Provide an example of your leadership approach.</td>
<td>1.80</td>
<td>0.95</td>
<td>50% 27% 16% 7%</td>
<td>.28**</td>
</tr>
<tr>
<td>2</td>
<td>Imagine you are working on a team that requires unanimous consent to move forward on a project. The other members have agreed upon a plan for the project that you strongly disagree with. How do you proceed?</td>
<td>1.77</td>
<td>0.81</td>
<td>43% 40% 14% 3%</td>
<td>.23**</td>
</tr>
<tr>
<td>3</td>
<td>Imagine you are the leader of a group and someone on your team openly expressed their concern with one of your decisions to you and others. It turns out that your decision was the correct call. How would you handle this situation?</td>
<td>1.47</td>
<td>0.77</td>
<td>67% 21% 9% 3%</td>
<td>.23**</td>
</tr>
<tr>
<td>4</td>
<td>Describe a time in which you had authority over other people. What was your approach to leading?</td>
<td>1.58</td>
<td>0.74</td>
<td>56% 31% 12% 1%</td>
<td>.09</td>
</tr>
<tr>
<td>5</td>
<td>Describe a time you were in a team setting and the group was successful. What were the primary reasons the group succeeded?</td>
<td>1.26</td>
<td>0.69</td>
<td>86% 6% 6% 3%</td>
<td>-.06</td>
</tr>
</tbody>
</table>

Note. N = 146; SD = standard deviation; NPI r = correlation with the 16-item Narcissistic Personality Inventory self-report.
Table 4. Inter-item Correlations Between Potential Narcissism Interview Items (Study 2)

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Do you consider yourself a natural born leader or someone who’s had</td>
<td>(.56)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to learn how to lead? Provide an example of your leadership approach.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Imagine you are working on a team that requires unanimous consent</td>
<td>.24**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to move forward on a project. The other members have agreed upon a</td>
<td>(.30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>plan for the project that you strongly disagree with. How do you</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>proceed?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Imagine you are the leader of a group and someone on your team</td>
<td>.47**</td>
<td>.34**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>openly expressed their concern with one of your decisions to you</td>
<td>(.50)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and others. It turns out that your decision was the correct call.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How would you handle this situation?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Describe a time in which you had authority over other people.</td>
<td>.48**</td>
<td>.25**</td>
<td>.30**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What was your approach to leading?</td>
<td>(.44)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Describe a time you were in a team setting and the group was</td>
<td>.18*</td>
<td>-.02</td>
<td>.10</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>successful. What were the primary reasons the group succeeded?</td>
<td>(.11)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 146; Corrected item-total correlations are presented on diagonal in parentheses; *p < .05; **p < .01.

Scale Evaluation – Narcissism Interview Scale (NIS)

Items 1, 2, and 3 were selected for the narcissism interview scale (NIS) because of the consistently performed well across Studies 1 and 2 and the items vary in content. Item 4 was omitted for two reasons. First, interviews require resources to conduct and evaluate so fewer items will increase the likelihood that the interview scale is usable in an applied setting. Second, Item 4 is similarly worded to Item 1 and I believe that including similarly worded questions in an interview may lead to poor interview reactions by an applicant.
Means, standard deviations, and correlations for Study 2 variables are reported in Table 5. Frequency scores for the NIS are reported in Table 6. The hypotheses were tested using the scores from the primary rater because the primary rater evaluated all participants within the sample. Only the interrater reliability relied upon the scores from the secondary raters.

**Descriptive Statistics and Reliability.** The NIS had a mean score of 1.68 ($SD = 0.63$) and 14% of participants were rated as higher narcissism (score of 2.67 to 4.00). In addition, the Cronbach’s alpha for the NIS was .61, which indicates low internal consistency.

The interrater reliability between the primary rater and the mean of secondary raters was $r = .74$. In addition, the 36 interrater correlations among the secondary raters had a sample weighted mean correlation of $r = .55$. Overall, the interrater reliability for the NIS was strong.

**Convergence with Narcissism Self-report.** Hypothesis 1 predicted a positive correlation between the NIS and narcissism self-report. In support of Hypothesis 1, the narcissism NIS was positively correlated with narcissism self-report ($r = .33$, $p < .01$).

Partial support was found for Hypothesis 2, which predicted that the correlation between the NIS and narcissism self-report would be stronger than correlations between the NIS and self-reports of other personality traits (non-narcissism). Steiger Z (Lee & Preacher, 2013) test was used to compare the strength of dependent correlations. As expected, the relationship between the NIS and narcissism self-report ($r = .33$) was significantly stronger that the relationships between the NIS and either self-reports of conscientiousness ($r = .16; z = 1.98, p < .05$), agreeableness ($r = .05; z = 2.94, p < .01$), emotional stability ($r = .07; z = 3.23, p < .01$), openness ($r = .07; z = 3.19, p < .01$), or self-deception ($r = .14; z = 2.41, p < .01$). The relationship was not significantly stronger when involving self-report extraversion ($r = .25; z = .
1.07, \( p = .14 \), but the result was trending in the expected direction. Overall, the results indicate that the NIS converges with narcissism self-report and this empirical overlap is greater than or equal to the empirical overlap with measures of other self-report traits.

**Correlations with Other Personality Traits.** Hypotheses 3 through 5 predicted significant relationships between the NIS and self-reports of conscientiousness, extraversion and agreeableness. Consistent with Hypothesis 3, the NIS was positively correlated with self-report conscientiousness (\( r = .16, p < .05 \)). Consistent with Hypothesis 4, the NIS was positively correlated with self-report extraversion (\( r = .25, p < .01 \)). Inconsistent with Hypothesis 5, the NIS was not correlated significantly with self-report agreeableness (\( r = .05, p > .05 \)).

The relationships between the NIS and self-reports of either emotional stability or openness were expected to be weak or non-significant. To test for such relationships, this study compared the strength of correlations involving the NIS with self-report narcissism. Consistent to Hypothesis 6, the relationship between the NIS and self-report emotional stability (\( r = .07 \)) was significantly weaker than the relationship between self-report narcissism and self-report emotional stability (\( r = .22; z = -1.97 \quad p < .05 \)). Consistent to Hypothesis 7, the relationship between the NIS and self-report openness (\( r = .07 \)) was significantly weaker than the relationship between self-report narcissism and self-report openness (\( r = .20; z = -1.70 \quad p < .05 \)).

Hypothesis 8 predicted a positive relationship between the NIS and self-deception. Consistent with Hypothesis 8, the NIS was positively correlated with self-report self-deception (\( r = .14, p < .05 \)).

**Outcomes of Narcissism.** Consistent with Hypothesis 9, the NIS was positively correlated with overconfidence (\( r = .22, p < .01 \)).
Table 5. Descriptive Statistics and Correlations for Variables (Study 2)

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Narc. Interview</td>
<td>1.68</td>
<td>0.63</td>
<td>(.61)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Narc. Self-report</td>
<td>1.23</td>
<td>0.14</td>
<td>.33** (.55)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Conscientiousness</td>
<td>5.43</td>
<td>0.80</td>
<td>.16* .09 (.81)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Extraversion</td>
<td>5.17</td>
<td>1.03</td>
<td>.25** .30** (.90)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Agreeableness</td>
<td>5.33</td>
<td>0.64</td>
<td>.05 -.09 .32** .33** (.67)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Emot. Stability</td>
<td>3.90</td>
<td>1.16</td>
<td>.22** .18** .44** .11 (.88)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Openness</td>
<td>5.43</td>
<td>0.88</td>
<td>.07 .20** .23** .21** .05 -.07 (.83)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Self-deception</td>
<td>4.05</td>
<td>0.89</td>
<td>.14* .24** .39** .50** .25** .68** .21** (.71)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Overconfidence</td>
<td>2.64</td>
<td>0.70</td>
<td>.22** .10 .15* .04 .15* .01 .15* .13 -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. Study 2 N = 146; Narc. interview = narcissism interview; Narc. self-report = Narcissism self-report; Emot. stability = emotional stability; Narcissism interview calculated using items 1, 2, and 3 from the primary rater. Cronbach’s alpha presented on diagonal in parentheses; *p < .05; **p < .01.

Table 6. Narcissism Interview Scale Score Frequencies (Study 2)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>1.00</th>
<th>1.33</th>
<th>1.67</th>
<th>2.00</th>
<th>2.33</th>
<th>2.67</th>
<th>3.00</th>
<th>3.33</th>
<th>3.67</th>
<th>4.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>22%</td>
<td>30%</td>
<td>15%</td>
<td>11%</td>
<td>8%</td>
<td>8%</td>
<td>2%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>

*Note. Study 2 N = 146; Narcissism Interview = average score of items 1, 2, and 3 from the primary rater.
Study 3

Method

Participants and Procedure

For Study 3, I had a total of $N = 105$ participants from an applied sample of applicants. Demographics were not recorded using self-report. Limited demographics could be extracted from bio-data records. The sample consisted of 73% female and 27% male. All participants had a 4 year college degree and on average graduated 2 years prior.

Participants in Study 3 were applicants to industrial-organizational psychology master’s degree program. Admission into the graduate program is highly competitive, with applicants aware that over 100 applications are received annually for approximately 10 spots. Personality and interview data was collected during the selection process, which involved an online personality survey and one-way video interview. Upon the completion of the personality survey, the applicants gave consent to use their data for this research. Of the 120 applicants who were sent the survey and interview materials, 12 did not respond and 3 chose not to share their data for research purposes.

Participants had 10 days to complete an online personality assessment and a one-way video interview. The instructions accompanying the personality assessment indicated that participants’ “. . . responses will be reviewed by program faculty.” The one-way video interview included 10 structured questions, which were provided to participants within the original email. Each interview response had a 1-minute time limit and participants could re-record a response once prior to submission.

Measures
Narcissism Interview Items. The NIS from Study 2 was used in Study 3. A similar rating method was used as described in Study 1. One rater evaluated all participants; this rater did not provide ratings in either Study 1 or Study 2. The rater was a psychology professor and a member of the selection committee for the graduate program. The rater had no knowledge of the participants’ self-report survey results at the time of the ratings.

Personality Self-report. The same self-report scale for narcissism and the Five Factor Model traits from Study 2 were used in Study 3. The Cronbach’s alpha for the measures of narcissism, conscientiousness, extraversion, agreeableness, emotional stability, and openness were .74, .85, .54, .88, and .68, respectively.

Results

Scale Evaluation – Narcissism Interview Scale (NIS)

Means, standard deviations, and correlations for Study 3 variables are reported in Table 8. Frequency scores for the NIS are reported in Table 7. Study 3 tested Hypotheses 1 through 7. Hypotheses 8 and 9 were not tested because measures of self-deception and overconfidence were not measured within the applied setting.

Descriptive Statistics and Reliability. The NIS had a mean score of 1.98 ($SD = 0.69$) and 22% of participants were rated as higher narcissism (score of 2.67 to 4.00). In addition, the Cronbach’s alpha for the NIS was .62, which indicates low internal consistency.

Convergence with Narcissism Self-report. Hypothesis 1 predicted a positive correlation between the NIS and narcissism self-report. In support of Hypothesis 1, the NIS was positively correlated with narcissism self-report ($r = .43, p < .01$).
Support was found for Hypothesis 2, which predicted that the correlation between the NIS and narcissism self-report would be stronger than correlations between the NIS and self-reports of other personality traits (non-narcissism). Steiger Z (Lee & Preacher, 2013) test was used to compare the strength of dependent correlations. As expected, the relationship between the NIS and narcissism self-report ($r = .43$) was significantly stronger that the relationships between the NIS and either self-reports of conscientiousness ($r = .20; z = 2.35, p < .01$), extraversion ($r = .13; z = 3.05, p < .01$), agreeableness ($r = -.05; z = 2.92, p < .01$), emotional stability ($r = .01; z = 3.68, p < .01$), or openness ($r = .06; z = 3.20, p < .01$). Overall, the results indicate that the NIS converges with narcissism self-report and this empirical overlap is greater than the empirical overlap with measures of other self-report traits.

**Correlations with Other Personality Traits.** Hypotheses 3 through 5 predicted significant relationships between the NIS and self-reports of conscientiousness, extraversion, and agreeableness. Consistent with Hypothesis 3, the NIS was positively correlated with self-report conscientiousness ($r = .20, p < .05$). Inconsistent with Hypothesis 4, the NIS was not positively correlated with self-report extraversion ($r = .13, p > .05$). Inconsistent with Hypothesis 5, the NIS was not negatively correlated with self-report agreeableness ($r = -.05, p > .05$).

The relationships between the NIS and self-reports of either emotional stability or openness were expected to be weak or non-significant. To test for such relationships, Hypotheses 6 and 7 compared the strength of correlations involving the NIS with self-report narcissism. Consistent to Hypothesis 6, the relationship between the NIS and self-report emotional stability ($r = .01$) was significantly weaker than the relationship between self-report narcissism and self-report emotional stability ($r = .24; z = -2.22, p < .05$). Contrary to Hypothesis 7, the relationship
between the NIS and self-report openness \((r = .06)\) was not significantly weaker than the relationship between self-report narcissism and self-report openness \((r = .22; z = -1.54 \ p = .06)\), but the effect was approaching the significance threshold.

Table 7. Narcissism Interview Scale Score Frequencies (Study 3)

<table>
<thead>
<tr>
<th>Score</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>10%</td>
</tr>
<tr>
<td>1.33</td>
<td>20%</td>
</tr>
<tr>
<td>1.67</td>
<td>7%</td>
</tr>
<tr>
<td>2.00</td>
<td>14%</td>
</tr>
<tr>
<td>2.33</td>
<td>15%</td>
</tr>
<tr>
<td>2.67</td>
<td>12%</td>
</tr>
<tr>
<td>3.00</td>
<td>5%</td>
</tr>
<tr>
<td>3.33</td>
<td>3%</td>
</tr>
<tr>
<td>3.67</td>
<td>1%</td>
</tr>
<tr>
<td>4.00</td>
<td>1%</td>
</tr>
</tbody>
</table>

Note. Study 3 \(N = 105\); Narcissism Interview = average score of items 1, 2, and 3.

Table 8. Descriptive Statistics and Correlations for Variables (Study 3)

<table>
<thead>
<tr>
<th>Variables</th>
<th>(M)</th>
<th>(SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Narcissm Interview</td>
<td>1.98</td>
<td>0.69</td>
<td></td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Narcissm Self-report</td>
<td>1.27</td>
<td>1.75</td>
<td>.43**</td>
<td>(.69)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Conscientiousness</td>
<td>5.98</td>
<td>5.33</td>
<td>.20*</td>
<td>.43**</td>
<td>(.74)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Extraversion</td>
<td>5.84</td>
<td>0.73</td>
<td>.13</td>
<td>.31**</td>
<td>.57**</td>
<td>(.85)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Agreeableness</td>
<td>5.41</td>
<td>0.48</td>
<td>-.05</td>
<td>-.01</td>
<td>.27**</td>
<td>.25**</td>
<td>(.54)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Emotional Stability</td>
<td>5.21</td>
<td>0.92</td>
<td>.01</td>
<td>.24**</td>
<td>.43**</td>
<td>.48**</td>
<td>.22*</td>
<td>(.88)</td>
<td></td>
</tr>
<tr>
<td>7 Openness</td>
<td>5.67</td>
<td>0.61</td>
<td>.06</td>
<td>.22*</td>
<td>.25**</td>
<td>.53**</td>
<td>.36**</td>
<td>.14</td>
<td>(.68)</td>
</tr>
</tbody>
</table>

Note. \(N = 105\); Narcissm interview calculated using items 1, 2, and 3. Cronbach’s Alpha presented on diagonal in parentheses; *\(p < .05\); **\(p < .01\).
General Discussion

Summary of Findings

The results of this validation study provided five lines of evidence regarding the usage of employment interview questions to identify narcissism.

First, it was important to ensure the usability of the NIS in an applied setting by ensuring that there is good quantity and quality of items. Interviews require resources to conduct and evaluate, so the fewer the items, the better the likelihood of usability in an applied setting. It was also important to ensure the quality of items by making sure that none of the items were worded too similarly and thus testing for the same thing twice, because that would lead to poor applicant reactions to the NIS. After testing the items for quantity and quality from White’s (2020) interview scale, the best potential items were narrowed down to items 1, 2 and 3.

Second, it was important to demonstrate the content validity of NIS. White (2020) provided some evidence for content validity using subject matter experts and qualitative review on participant responses to the NIS. The current study sought to evaluate the content validity of the NIS using an empirical approach. In support of Hypotheses 1 and 2, the NIS and self-report narcissism were positively correlated and this relationship was generally stronger than relationships between the NIS and other traits. Of note, the convergence between the NIS and self-report narcissism was moderate in strength, which indicates the methods are at least somewhat distinct. The moderately strong correlation between interview ratings and self-report is relatively strong compared to other research efforts to measure personality using a structured interview (Barrick, Patton, & Haugland, 2000; Huffcutt, Conway, Roth & Stone, 2001; Van Iddekinge, Raymark, & Roth, 2005). As a result, I do not believe the moderate correlation is
indicative of poor content validity. Rather, the moderate correlation is likely because the narcissism construct includes content that cannot properly be assessed with self-report. This is because narcissism is associated with distorted self-views (Campbell, Rudich & Sedikides, 2002). Thus, I interpret the moderate correlation as a strength of the study and additional evidence that the content domain of narcissism is properly being assessed.

The third line of evidence presented in this validation study tested the relationships between the NIS and other personality traits. Hypothesis 3 was supported across both Study 2 and Study 3 with the NIS being positively correlated with conscientiousness. As expected, these findings differ from the null empirical findings found in prior research involving self-report narcissism (Bradlee & Emmons, 1992; Clark, Lelchook & Taylor, 2010). Partial support was found for Hypothesis 4, which predicted a positive relationship between the NIS and extraversion. The NIS was positively correlated with extraversion in Study 2, but had a non-significant relationship in Study 3. The mixed results may be due to the small sample size in Study 3 as the correlation coefficient was trending in the positive direction. Hypothesis 5 was not supported in Study 2 and Study 3 with the NIS not being significantly correlated with agreeableness. Interestingly, the results also indicate that self-report narcissism was not significantly correlated with agreeableness in the current studies, which is contrary to prior research involving self-report narcissism. The null findings may be due to the poor internal consistency of the agreeableness measure (cronbach alphas = .67 and .54), which will attenuate correlations. Hypothesis 6 was supported in Study 2 and Study 3 with the correlation between the NIS and emotional stability being weaker than the correlation between self-report narcissism and emotional stability. The difference in correlation strength is likely due to limitations of self-report
narcissism and the lack of conceptual overlap between narcissism and emotional stability. Hypothesis 7 was supported in Study 2 and Study 3 with the correlation between the NIS and openness being weaker than the correlation between self-report narcissism and openness. In addition, the correlations between the NIS and openness was non-significant across both studies. The lack of relationship between the NIS and openness is likely due to the lack of conceptual overlap within the constructs.

Hypothesis 8 was supported in Study 2 with the NIS being positively correlated with self-deception. Due to data collection limitations, the relationship could not be tested in Study 3. The positive relationship indicates that the NIS is accurately capturing the tendency of those higher in narcissism to distort one’s self-image. Although not hypothesized, the NIS relationship with self-deception was weaker than the relationship between self-report narcissism and self-deception. The difference in correlation strength could be because socially desirable responding is an indicator of faking (e.g., Furnham, 1986; MacKenzie & Podsakoff, 2012) and self-report narcissism may be more easily faked than the NIS. Or, the stronger correlations between self-report variables could be due to common method bias (MacKenzie & Podsakoff, 2012). Overall, the results indicate that the NIS converges with other traits in a pattern similar to what was expected and the results were largely consistent across both Study 2 and Study 3.

Predictive validity was tested and established as a fourth line of evidence against the NIS. Campbell, Goodie and Foster (2004) used self-report narcissism to predict an outcome variable of narcissism – overconfidence – and found narcissism to be a significant predictor of overconfidence; $r = 0.28, p < .01$. Hypothesis 9 was supported in Study 2 as the NIS had a significant correlation with overconfidence as well; $r = .22, p < .01$. Due to data collection
limitations, the relationship could not be tested in Study 3. The result indicates that the NIS predicts an outcome variable in a pattern similar to what was expected from self-report narcissism.

The fifth line of evidence showcased good inter-rater reliability of .74 between the ratings of nine raters, despite the restriction of range in scoring frequencies. This shows that the study achieved consistency in ratings through the rater training and scoring guides.

**Practical Implications**

This topic of identifying narcissism is important because narcissism could be on the rise within our population. Twenge, Konrath, Foster, Campbell and Bushman (2008) present evidence that there is an increase in narcissism among college students, suggesting that there could be an influx of narcissism in the workforce in the coming years.

This is where I see the NIS being useful for researchers and practitioners alike. With narcissists prevalent in the workforce, I would recommend using the NIS to look at organizational fit and team fit before making hiring decisions and to use the behavioral examples to highlight fit (misfit) with the organization. Person-organization fit is the matching of the workers’ personality, beliefs, and values to the organization’s culture, beliefs, and values. Person-organization fit is the underlying theory for the application of social personality traits within organizations because it is predictive of important organizational outcomes, such as job satisfaction, organizational commitment and turnover (O’Reilly III, Chatman & Caldwell, 1991; Kristof, 1996; Westerman & Cyr, 2004). The evidence from the current studies indicates that the NIS has conceptual convergence with narcissism theory and empirical convergence with narcissism self-report. This convergence can enable organizations to use the measure to evaluate
fit between an applicant and the organization’s culture. The current studies did not evaluate
whether the NIS is predictive of job performance so I caution against the use of cut-off scores
until future research can establish validated cut-off scores. Rather than using the NIS to make
hiring decisions, I recommend the organization use the NIS to better convey to an applicant the
fit (or misfit) with their culture. The use of behavioral examples obtained from the interview will
properly illustrate to an applicant the fit (misfit). An applicant can then decide whether or not
this is an appropriate organization to work for. As indicated by the Attraction, Selection,
Attrition Model (Schneider, Goldstein, & Smith, 1995), applicants are attracted to work
environments that fit their personality. Thus, it is reasonable to assume that workers will use the
NIS feedback to either withdraw their application (misfit) or proceed with their application (fit).

A possible direction for researchers and practitioners alike, would be to develop an
evolutionary model that builds upon the NIS to not only identify narcissists, but instead, seek to
find the appropriate niche job roles for these individuals based on a consideration of how their
personality is designed to function in the workforce (Jonason, Wee & Li, 2014). The NIS can be
used as a tool to showcase individuals’ personalities in terms of interpersonal skills and
leadership in the workplace. A new model can use that to further determine the nice job roles out
there that would result in a great person-job fit for these individuals. Narcissists are not bad, they
just need to be placed in the right job, with the right team in the right organization.

It is important to note that applicants higher in narcissism may be desired by some
organizations because they fit their culture and perception of strong leadership. Kramer (2006)
raises a great point on “The Great Intimidators” - there are some great leaders who have gotten to
where they are by being narcissists. Consider Disney’s CEO, Michael Eisner, people may not
like intimidators, but they respect truly great ones. Kramer (2006) discussed stories from Eisner’s employees on how he was arrogant, greedy and insensitive, leading to disharmony in the organization. However, one cannot ignore the fact that Eisner has now transformed Disney into one of the world’s most successful entertainment companies. Similarly, if organizations are looking for their next Eisner and are ready to hire candidates that score highly on the NIS, employers must therefore consider formulas for increasing the viability of narcissistic leaders. For instance, Kets de Vries (1997) suggests safeguards such as organizational checks and balances, honest feedback, and executive training to keep narcissistic leaders under control, should organizations still choose to hire them.

**Limitations**

Although I believe the present results are informative, it is important to note some limitations of this study. The current study found strong evidence of inter-rater reliability. This is likely due to the rater training provided. Although consistency was demonstrated, the rater training was limited by relying upon behavioral examples exclusively from White (2020) for the rater training. The current study provides hundreds of additional recorded behavioral examples that can be used in future rater training to broaden the scope of what higher and lower narcissism responses can look like. Most notably, the responses from Study 3 provide examples from real interviews whereas White (2020) responses were from mock interviews.

The behavioral examples listed within the behavioral anchored rating scale were also limited in scope and likely limited a raters ability to identify higher narcissism. The rating scale could include more behavioral examples from leadership scenarios that have been demonstrated in research.
The rating scale could include more behavioral examples from leadership scenarios that have been demonstrated in research. Common feedback from raters post study was that they would have preferred more quotes and contextual cues for each scoring option. This difficulty likely led to range restriction in the scoring. Indeed, the empirical results indicate that raters predominately used values of 1 and 2. More variety in the high narcissism contextual cues and quotes can be obtained from the current data sets or prior narcissism research. For example, Rosenthal and Pittinsky (2006) discuss an exploratory list of portrayals to the upside of narcissistic leaders which could have been more evident as a “3” or a “4” in the responses to the interview questions. They discussed how narcissistic leaders display the air of supreme confidence (Post, 1993), dominance which inspires a group of followers (Gladwell, 2002; Hogan et. al., 1994; Post, 1986), drive to gain power and glory (Maccoby, 2017) and charm to convert the masses (Maccoby, 2000). More of such “positive” contextual cues to the upside of narcissistic leaders will likely increase the variability in the scores and address the concern of range restriction.

**Future Directions**

There needs to be more research to evaluate the content validity of the NIS. For this study, I used personality correlates of the Big Five and self-deception based on prior research that showed evidence of some relationship with narcissism (Bradlee & Emmons, 1992; Graziano & Tobin, 2001; Paulhus & Williams, 2002; Saulsman & Page, 2004; Clark, Lelchook & Taylor, 2010; Furnham, Hughes & Marshall, 2013; Maciantowicz & Zajenkowski, 2018; Hart, Tortoriello & Rischart, 2019; Hart et. al., 2015). Other personality traits and individual differences that have empirical relationships with self-report narcissism include self-esteem
(Campbell, Rudich, Sedikides, 2002), defensive self-enhancement (Raskin, Novacek, & Hogan, 1991), and perfectionism (Trumpeter, Watson, & O’Leary, 2006).

Applicant reactions to the NIS is another important area for future research. Applicant reactions to selection procedures have been based on organizational and procedural justice literature that refer to the perceived fairness of the methods used to make organizational decisions (Folger & Greenberg, 1985). Applicant reactions to the NIS can be recorded using the applicant reaction scale developed by Bauer, Truxilo, Sanchez, Philip Ferrara and Campion (2001) called the Selection Procedural Justice Scale (SPJS), that aims to assess the perceived fairness of tests used during the selection process. Gilliland (1993) discusses the importance of applicant reactions on how they have an impact on organizational attractiveness, job acceptance, and test-taking motivation. Negative reactions could lead to legal actions on the organization, and negative self-perceptions for the applicant (Bauer, Maertz, Dolen, & Campion, 1998; Truxillo & Bauer, 1999). In addition, applicants tend to favor procedures that are seen as job-related (Ployhart & Ryan, 1997; Steiner & Gilliland, 1996). The SPJS is a good scale to determine the influence the NIS has on perceived fairness of the selection process. I believe behavioral prompts about leadership and followership in the NIS will be viewed by applicants and employers as both job-relevant and narcissism-relevant.

Future research should also expand upon the tests of convergent validity demonstrated within the current studies. I used the NPI to measure self-report narcissism scale in this study. However, the NPI is a scale that measures overt narcissism. Wink (1991) distinguished between two statistically independent forms of narcissism, overt narcissism (ON) characterized by grandiosity, entitlement and self-absorption and covert narcissism (CN) characterized by
hypersensitivity, vulnerability and dependence on others. While ON has a clear empirical overlap
with the NIS, with items testing for grandiosity and self-absorption in leadership skills and
entitlement in interpersonal skills, CN also reports interpersonal problems characterized by
vindictiveness/self-centeredness and social inhibition (Akhtar & Thomson, 1982; Broucek,
1991). Given-Wilson, McIlwain and Warburton’s (2011) research identified how CN is related to
a lack of empathic concern and perspective-taking, as well as being socially detached, socially
anxious and distrustful. Future research could go on to validate the NIS by using the
Hypersensitivity Narcissism Scale (HSNS; Hendin & Cheek, 1997) used to measure CN. It is a
10-item measure of narcissistic vulnerability and hypersensitivity suitable for non-clinical
populations (Hendin & Cheek, 1997) with an acceptable reliability (r = .62 to .75) and construct
validity established at r = .63 (Hendin & Cheek, 1997). Since the items on the NIS assess an
individuals’ interpersonal skills and leadership skills, there is bound to be conceptual overlap
between high scoring CNs and the NIS, though it may be weaker than the overlap between high
scoring ONs and the NIS. Candidates high in CN will respond with quotes and contextual cues
showing a lack of empathetic concern in their approach to leadership as well as the inability to
take other’s perspectives into their decision making process (Given-Wilson, McIlwain &
Warburton, 2011).

Although I recommend the use of the NIS for facilitating person-organization fit,
additional research is needed before cut-off scores can be established. Future research needs to
expand upon the criterion used to evaluate the NIS. The current study began this effort by
examining overconfidence as a criteria. However, cut-off scores should be established using job-
relevant criteria, such as job performance. Performance behaviors that are likely to be positively
related to narcissism include aggression toward others (Twenge & Campbell, 2003). Establishing criterion related validity of the NIS would help develop the cut off score needed for the NIS.

There are several reasons why it is worthwhile to design and validate interviews as a method of personality assessment. For one, research suggests that interviewer ratings of personality-related constructs may predict job performance ratings with higher validity than self-report personality scores (Huffcutt, Conway, et al., 2001). There is also evidence that interviews often result in more favorable applicant reactions than paper-and-pencil personality tests (e.g., Hamill & Bartle, 1998; Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993; Steiner & Gilliland, 1996). Decision makers also like to include interviews in the selection process to “get to know” job candidates. Finally, interviews could be used in addition to self-report personality measures to provide a more complete assessment of the personality dimensions relevant to the job of interest. For example, a personality-based interview, like the NIS, could be used in the final stage of the selection process to verify or further probe self-report personality data obtained in earlier stages. This is how you avoid hiring a bad apple, even in the final stage of the selection process.
References


Twenge, J. M., Konrath, S., Foster, J. D., Campbell, W. K., & Bushman, B. J. (2008). Further evidence of an increase in narcissism among college students. *Journal of Personality, 76*, 919-928.


Appendix A: Brain Teasers

Brain Teasers

Below are several brain teaser questions. For each brain teaser, provide a range that you are 90% sure would contain the actual value.

What is the total revenue generated in the US market for lawn and garden equipment each year?

How many gas stations are there in the United States?

How many murders were there in the United States in 2018?

How many pounds of ice cream are consumed by Americans each year?

How many minutes does the average American spend on their phone per day?

Compared to your classmates, how accurate are your brain teaser answers?

- I’m at the very bottom
- Below average
- About average
- Above average
- I’m at the very top
### Appendix B: Content Validity Coding Results of Items from the NIS

**Content Validity Coding Results for Items Retained Without Revision**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Interview Question</th>
<th>Count (z-score)</th>
<th>Clarity</th>
<th>Overlap</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you consider yourself a natural born leader or someone who has had to learn how to lead? Please provide an example of your leadership approach.</td>
<td>11 (0.08)</td>
<td>8</td>
<td>C; SE; E</td>
</tr>
<tr>
<td>2</td>
<td>Imagine you were working on a team that requires unanimous consent to move forward on a project. The other members have agreed upon a plan for the project that you strongly disagree with. How do you proceed?</td>
<td>11 (0.08)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Imagine you were working on a team that requires unanimous consent to move forward on a project. The other members have agreed upon a plan for the project that you strongly disagree with. How do you proceed?</td>
<td>25 (1.99)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Describe a time in which you had authority over other people. What was your approach to leading?</td>
<td>13 (0.35)</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Describe a time you were in a team setting and the group was successful. What were the primary reasons the group succeeded?</td>
<td>12 (0.21)</td>
<td>10</td>
<td>C; E</td>
</tr>
</tbody>
</table>

Appendix C: Scoring Instructions

Customized scoring guides are provided for each interview question to score the interview response for narcissism content. Following the scoring guide will ensure consistency in applicant scoring and increase fairness.

Narcissism may have different meanings for different people. Use this definition to familiarize yourself with the concept of narcissism: egotistical, self-focused, vain, lack of genuine empathy, and visions of grandiosity.

Each Scoring Guide will include contextual cues and example responses to guide your scoring. Please select one of four scoring options:

1. Very Low Narcissism:
   - Consistently met the criteria for very low narcissism.
   - Excludes examples of very high narcissism.
2. Slightly Lower Narcissism:
   - Occasionally met the criteria for very low narcissism.
   - Very low narcissism examples are more common than very high narcissism examples.
3. Slightly Higher Narcissism
   - Occasionally met the criteria for very high narcissism.
   - Very high narcissism examples are more common than very low narcissism examples.
4. Very High Narcissism
   - Consistently met the criteria for very high narcissism.
   - Excludes examples of very low narcissism.
Appendix D: Score Guide – Item 1

**Interview Question:** Do you consider yourself a natural born leader or someone who has had to learn how to lead? Please provide an example of your leadership approach.

<table>
<thead>
<tr>
<th>Score:</th>
<th>Very Low Narcissism</th>
<th>Slightly Lower Narcissism</th>
<th>Slightly Higher Narcissism</th>
<th>Very High Narcissism</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Very Low Narcissism Contextual Cues**
- Focuses on importance of collaboration
- Expresses the need for personal humility
- Emphasizes a values-based leadership style
- Focuses on the needs and development of the team

**Example Responses**
- “I always try to include and consider the minority voice and value my people and relationships.”
- “I lead by collaboration and taking in all perspectives so that I create a safe space for my team to perform.”
- “My approach is an emphasis on positivity and cooperation.”
- “Effective leadership is a group effort not just the work of one individual.”

**Very High Narcissism Contextual Cues**
- Describes an inflated sense of self-importance
- Expresses belief they will be always be successful
- Expresses desire and joy to be in control of others
- Believes that their leadership skills are innate

**Example Responses**
- “I believe I am a natural born leader, innately gifted in that area; people look up to me.”
- “I am more of an ‘alpha’ and that allows me to be at the top.”
- “I am usually the most driven in any group so I inevitably end up leading.”
- “I'm a natural leader – this runs in my family, my father and grandfather were all leaders - I was given this skill early on in life - I know how to get the best out of people and form the perfect team.”
Appendix E: Score Guide – Item 2

Interview Question: Imagine you were working on a team that requires unanimous consent to move forward on a project. The other members have agreed upon a plan for the project that you strongly disagree with. How do you proceed?

<table>
<thead>
<tr>
<th>Score</th>
<th>Very Low Narcissism</th>
<th>Slightly Lower Narcissism</th>
<th>Slightly Higher Narcissism</th>
<th>Very High Narcissism</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Expresses a need to understand others’ views</td>
<td>Focuses on a collaborative solution</td>
<td>Highlights importance of open-communication</td>
<td>Expresses ability to sway group decision as “winning”</td>
</tr>
<tr>
<td></td>
<td>Expresses a willingness to compromise</td>
<td></td>
<td></td>
<td>Expresses that they would quit group if no agreement</td>
</tr>
<tr>
<td></td>
<td>Example Responses</td>
<td></td>
<td></td>
<td>Describes not wanting to be controlled</td>
</tr>
<tr>
<td></td>
<td>“It would be important to be respectful and seek to understand the team decision.”</td>
<td></td>
<td></td>
<td>Describes compromise/collaboration as a weakness</td>
</tr>
<tr>
<td></td>
<td>“I would foster true collaboration to get to a win-win outcome rather than just compromise or settling.”</td>
<td></td>
<td></td>
<td>Example Responses</td>
</tr>
<tr>
<td></td>
<td>“I would advocate for continued dialogue and work to seek mutual understanding to support a solution.”</td>
<td></td>
<td></td>
<td>“I would look at what parts I hate about the team plan and try to change those things.”</td>
</tr>
<tr>
<td></td>
<td>“The good of the whole is more important than the good of the one.”</td>
<td></td>
<td></td>
<td>“I would try to convince the team why they are making the wrong decision.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“I would be open to leaving the team or stepping down as a result of the disagreement – the team needs to understand I am not a pushover, I can't be controlled easily, and I will always stand my ground.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“As long as I get my idea accepted that’s all that matters.”</td>
</tr>
</tbody>
</table>
Appendix F: Score Guide – Item 3

Interview Question: Imagine you are a leader of a group and someone on your team openly expressed their concern with one of your decisions to you and others. It turns out that your decision was the correct call. How would you handle this situation?

<table>
<thead>
<tr>
<th>Score:</th>
<th>Very Low Narcissism</th>
<th>Slightly Lower Narcissism</th>
<th>Slightly Higher Narcissism</th>
<th>Very High Narcissism</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Focuses on growth and development opportunity</td>
<td>Focuses on growth and development opportunity</td>
<td>Focuses on growth and development opportunity</td>
<td>Focuses on growth and development opportunity</td>
</tr>
<tr>
<td>2</td>
<td>Expresses encouragement of honest, open communication</td>
<td>Expresses encouragement of honest, open communication</td>
<td>Expresses encouragement of honest, open communication</td>
<td>Expresses encouragement of honest, open communication</td>
</tr>
<tr>
<td>3</td>
<td>Describes importance of empathy and respect for others</td>
<td>Describes importance of empathy and respect for others</td>
<td>Describes importance of empathy and respect for others</td>
<td>Describes importance of empathy and respect for others</td>
</tr>
<tr>
<td>4</td>
<td>Describes importance of privacy/confidentiality</td>
<td>Describes importance of privacy/confidentiality</td>
<td>Describes importance of privacy/confidentiality</td>
<td>Describes importance of privacy/confidentiality</td>
</tr>
</tbody>
</table>

Very Low Narcissism

Contextual Cues
- Focuses on growth and development opportunity
- Expresses encouragement of honest, open communication
- Describes importance of empathy and respect for others
- Describes importance of privacy/confidentiality

Example Responses
- “It’s important to hear these types of concerns because I am not always right, and this could be a learning opportunity for me.”
- “I wouldn’t brag or rub it in their face. I would try to make sure they are feeling okay about the disagreement and let them know their opinion always matters.”
- “Even if my decision is right it is still important to hear the voices of my colleagues.”

Very High Narcissism

Contextual Cues
- Expresses that they are always right
- Views situation as way to validate their leadership
- Describes highlighting that they made the right call
- Expresses frustration/anger over being questioned

Example Responses
- “I wouldn’t say or do anything – just let the fact that I was right demonstrate that I am in charge for a reason.”
- “I would prove to everyone that I was correct.”
- “I would remind them I am the group leader for a reason and that I make my decisions in a highly careful and calculated way.”
- “This would be a frustrating situation because they need to respect my authority.”
Appendix G: Score Guide – Item 4

**Interview Question:** Describe a time in which you had authority over other people. What was your approach to leading?

<table>
<thead>
<tr>
<th>Score:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td><strong>Very Low Narcissism</strong></td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td><strong>Slightly Lower Narcissism</strong></td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td><strong>Slightly Higher Narcissism</strong></td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td><strong>Very High Narcissism</strong></td>
</tr>
</tbody>
</table>

**Contextual Cues**
- Expresses a collaborative, team-first approach
- Describes the importance of honesty
- Describes the importance of open-communication
- Prioritizes empathy and respect for others

**Example Responses**
- “I like to lead with love over fear, and to build trust through open communication.”
- “Collaboration is the most important thing – you wouldn’t be a leader if you didn’t have a team.”
- “I would lead with empathy by putting myself in the place of my employees.”
- “I would be sensitive to my team members’ needs and support them through collaboration, recognition, and their development.”

**Contextual Cues**
- Expresses a strong preference to take control
- Expresses joy in getting own way
- Focuses on power and status as a desired end
- Describes self as a natural/born leader

**Example Responses**
- “I like to be the leader because I like to do things my way.”
- “I naturally fall into roles of leadership.”
- “I like to be the one who make the rules.”
- “I'm the kind of person that likes to take control – I like to tell everyone what to do.”
Appendix H: Score Guide – Item 5

Interview Question: Describe a time you were in a team setting and the group was successful. What were the primary reasons the group succeeded?

<table>
<thead>
<tr>
<th>Score:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low Narcissism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slightly Lower Narcissism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slightly Higher Narcissism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very High Narcissism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Very Low Narcissism**

- **Contextual Cues**
  - Values inclusion
  - Emphasizes importance of collaboration
  - Highlights teamwork and team support
  - Focuses on trust and open communication

- **Example Responses**
  - “It was important for everyone to be comfortable and feel listened to and included as part of the group.”
  - “The diversity of our team was a key strength - we could all teach and appreciate each other.”
  - “It was important that everyone was heard and had a voice in our work.”
  - “We were successful because we made sure we built good connections across our team and kept things positive.”

**Very High Narcissism**

- **Contextual Cues**
  - Focuses primarily on self-contribution
  - Describes self as naturally gifted leader
  - Discusses their leadership as key to success
  - Diminishes team contributions

- **Example Responses**
  - “We were all able to succeed by me being the leader and telling them exactly what to do.”
  - “Immediately I took charge of the group … I told them what to do… we succeeded because of good communication and everyone's work but especially because of what I contributed.”
  - “One significant factor was that as the leader I put our group in a good position to succeed.”
  - “The group was successful largely due to my efforts - I was able to coordinate the efforts and delegate based on everyone's strengths and weaknesses and be on top of everyone so I could ensure our success.”