



Published in final edited form as:

*Psychol Assess.* 2018 January ; 30(1): 31–42. doi:10.1037/pas0000487.

## Informant Assessment: The Informant Five-Factor Narcissism Inventory

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### Abstract

A series of self-report measures of personality disorder from the perspective of the five-factor model (FFM) have been published; however, no informant-report versions have been developed. An informant version of the Five Factor Narcissism Inventory (FFNI) is particularly apt, given the degree of distortion in self-description inherent to narcissism. The present study provides initial validation for the Informant Five-Factor Narcissism Inventory (IFFNI). In Study 1, informant-reports from friends, romantic partners, parents, and other family members were compared with self-reports provided by undergraduate college students on the IFFNI, FFM personality, and social dysfunction. Self-other agreement for IFFNI Grandiose (G) was higher than what has been found with other narcissism measures. No self-informant convergence, though, was found for IFFNI Vulnerable (V). From the informant-view, IFFNI-G and V narcissism were associated with social dysfunction, whereas from the self-view only FFNI-V was associated with social dysfunction. In Study 2, grandiose and vulnerable narcissists, identified by participants recruited from MTurk, were described in terms of the IFFNI, FFM, and Pathological Narcissism Inventory (PNI). Results indicated that the IFFNI discriminated well between G and V narcissism for all but a few scales. The exceptions may reflect vulnerable narcissistic traits within grandiose narcissists. In comparison, the PNI obtained a very similar informant-profile for the G and V narcissists. In sum, the results of the current study suggest value in having an informant-based measure of narcissism.

### Keywords

narcissism; informants; grandiose; vulnerable; five-factor narcissism inventory

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Eight Five Factor Model Personality Disorder (FFMPD) self-report inventories have been developed to assess DSM-5 Section II personality disorders from the perspective of the five factor model (FFM). As indicated within the introduction to this Special Section, quite a bit of research on these self-report inventories has been conducted (Bagby & Widiger, in press). However, to date, no informant version of any one of the eight measures has been developed. The purpose of the current study was to provide initial validation for an informant-based version of the Five Factor Narcissism Inventory (FFNI; Glover, Miller, Lynam, Crego, & Widiger, 2012).

It is apt that the first informant version of an FFMPD inventory would be for narcissism. Fundamental to narcissism is an exaggerated self-image that may sorely complicate its assessment. Indeed, narcissism has demonstrated relatively low levels of self-other agreement, (Klonsky, Turkheimer, & Oltmanns, 2002; Lukowitzky & Pincus, 2013; Miller, Pilkonis, & Clifton, 2005). Agreement between self and informants is typically the lowest for narcissistic personality disorder (NPD) among all forms of personality pathology (Cooper, Balsis, & Oltmanns, 2012; Walters et al., 2004). A meta-analysis investigating 30 studies found that agreement was lower for narcissistic traits than for all other types of personality pathology ( $r = .29$ ; Klonsky et al., 2002). This low self-informant agreement in the assessment of narcissistic personality traits has also been evident in younger, as well as adult, populations (Tackett, Herzhoff, Reardon, Smack, & Kushner, 2013; Trump & Koot, 2010).

In a complementary fashion, studies have also indicated that narcissism obtains among the highest levels of informant-informant, or inter-rater, agreement compared to other personality disorders (e.g., Clifton, Turkheimer, & Oltmanns, 2007; Hesse & Thylstrup, 2008; Samuel et al., 2012). Hesse and Thylstrup (2008), for example, had two clinicians (63 total) separately rate 75 substance abuse patients with whom they were familiar on the DSM-IV personality disorder diagnostic criteria. Clinicians agreed the most for NPD. Clifton et al. (2007) similarly reported that inter-rater agreement among 809 military recruits rating for each personality disorder in a round-robin design was the highest for NPD symptoms compared to other types of personality disorder.

Low self-other agreement on narcissism indicates that informants provide different information, but it does not indicate whether that information is useful. However, studies have supported the validity of informant-reports. Miller et al. (2005) reported that FFM ratings provided by informants were associated more strongly with expert-assessments of NPD than were the self-ratings. Carlson, Vazire, and Oltmanns (2013) similarly reported that informant-reports of FFM personality traits were “generally more informative ... and valid” (p. 162) than self-reports for predicting a composite narcissism rating.

Sleep, Sellbom, Campbell, and Miller (in press) reported that grandiose narcissism was not associated with defensive responding or underreporting. Nevertheless, consistent with the inflated self-image that is fundamental to narcissistic personality disorder, there is a body of research indicating that narcissistic individuals tend to present a relatively more favorable report of their social functioning compared to informant-reports, and that informants tend to provide a more unfavorable assessment (e.g., Grijalva & Zhang, 2016; John & Robins, 1994; Miller et al., 2005; Rhodewalt & Morf, 1995). For example, Park and Colvin (2014) found that when relying solely on the self-report of narcissism, the behaviors most strongly associated with narcissism were flattering (e.g., charming, poised), but informant-reported behaviors more frequently concerned maladjusted behaviors (e.g., critical, self-indulgent). Clifton et al. (2005) examined self-other agreement using a peer-nomination process amongst a sample of 393 college undergraduates who had been living together for five months. When informants described targets as narcissistic, informants were also likely to identify these persons as being aggressive and domineering.

It would appear evident from the above research that it would be potentially useful to develop an informant-based assessment of narcissistic personality traits. Informant-reports are routinely used within developmental personality research, due in part to concerns regarding the validity of self-report within young participants (Tackett, Herzhoff, Reardon, Smack, & Kushner, 2013; Tromp & Koot, 2010). However, it has also become evident from developmental, as well as adult, personality research that informant-reports of personality and personality disorder provide incremental validity to most any personality assessment (Klonsky et al., 2002; Vazire, 2006). Their usage can add some cost and burden to a personality assessment, which is one apparent reason for their less frequent use within adult personality research. However, given that narcissism is inherently associated with an inaccurate and exaggerated self-image, the more standard use of informants in developmental research is a perhaps a good example for adult personality assessment research (Tackett et al., 2013).

This is not to say that one cannot validly assess narcissism via a self-report inventory. There are indeed a number of well-validated self-report measures of narcissism, such as the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), the Pathological Narcissism Inventory (PNI; Pincus et al., 2009), and the FFNI (Glover et al., 2012). Each of these measures has accumulated a compelling body of research supporting their validity. Nevertheless, the existing research on the self-report assessment of narcissism, and comparisons to informant-reports, would suggest potential benefits of assessing narcissism via informant-reports and that a reliance on self-report for the assessment of narcissism may be problematic or incomplete.

The present study reports the results of the development and initial validation of an informant-version of the FFNI (Glover et al., 2012). The FFNI includes 15 scales for the assessment of both grandiose (11 scales) and vulnerable (4 scales) narcissism traits. The initial validation study of the FFNI supported the association of its scales with respective facets of the FFM, convergent validity with other measures of both grandiose narcissism (e.g., NPI) and vulnerable narcissism (e.g., PNI; Hypersensitive Narcissism Scale; Hendin & Cheek, 1997), and incremental validity of the FFNI over FFM and NPD scales in accounting for grandiose and vulnerable narcissism.

A number of additional studies have extended support for the construct validity of the FFNI. Miller, Gentile, and Campbell (2013) examined associations with a variety of external validators, including the dark triad of personality, attachment styles, internalizing/externalizing symptoms, and the interpersonal circumplex. Miller, Few, et al. (2013) reported strong convergent, discriminant, and incremental validity of the FFNI scales relative to other measures of narcissism including DSM-IV and DSM-5 Section III scales. Miller et al. (2016) reported a higher-order factor structure of the 15 FFNI scales. Across three independent samples, a three-factor structure emerged, with each factor corresponding to an FFM domain (i.e., neuroticism, agreeableness, and extraversion).

While the existing FFNI research has demonstrated good convergent, discriminant, and incremental validity, this research has relied solely on a self-report version of the FFNI. In the present study, the existing FFNI items were revised to be suitable for an informant

describing a specified target (i.e., Informant-FFNI, or IFFNI). Validation of the IFFNI was provided in two studies. In Study 1, the original FFNI was administered to college students and the IFFNI to informants, along with other measures of narcissism, the FFM, and social adjustment, each administered to both the students and the informants. Because narcissistic persons are often rated as highly likable and attractive upon initial interaction (Oltmanns, Friedman, Fiedler, & Turkheimer, 2004), yet their likeable reputation diminishes with time as persons get to know them better (e.g., Carlson, Vazire, & Oltmanns, 2011; Leckelt, Kүfner, Nestler, & Back, 2015), the present study recruited informants who were close to the target participants.

Self-other agreement for narcissistic traits is relatively low compared to other maladaptive traits (Cooper et al., 2012; Klonsky et al., 2002; Lukowitsky & Pincus, 2013). However, in the current study it was predicted that this relationship would be somewhat moderated by the respective FFM domain that is involved. Self-other agreement has been demonstrated as higher for extraversion and comparatively lower for agreeableness and neuroticism (e.g., Connelly & Ones, 2010). Thus, it was predicted that agreement would be higher for extraverted and grandiose narcissistic traits (e.g., medium-large effect sizes), and lower for vulnerable and neurotic narcissistic traits (e.g., low effect sizes).

In Study 2, the IFFNI was completed by MTurk participants, describing either a grandiose narcissist or a vulnerable narcissist. Participants also completed two measures of the FFM, as well as an informant-version of the PNI. These results will provide the first profile description of a grandiose and a vulnerable narcissist in terms of the scales of the FFNI and the PNI, as well as the FFM.

## Study 1

### Target Participants

Three hundred fifty-two students were recruited via the undergraduate psychology research participation pool at the University of Kentucky, completing the study for course credit. Fifty-six were eliminated due to elevated scores on a three-item noncontent-based responding scale (e.g., “I have not used a computer in the last two years,” and “Select strongly agree for this question”). Of the remaining 272 students, one hundred thirty-seven had at least one informant eventually complete questionnaires about them (response rate = 50%). These 137 student targets were on average 19.0 years of age ( $SD = 1.7$  years) and were 65% female. Ethnic backgrounds consisted of 83.9% white/Caucasian, 5.1% black/African-American, 5.1% Asian, 0.7% Native Hawaiian or Pacific Islander, 0.7% American Indian or Alaskan Native, 2.2% Hispanic/Latino, and 1.5% other. Seventeen percent reported that they had received mental health treatment at some point in their lives.

### Informants

Two hundred eight informants, including 93 parents (44.7%), 52 friends (25.0%), 40 other family members (19.2%), and 23 romantic partners (11.1%) were recruited via email invitations to participate, and completed questionnaires describing the student targets. If informants did not respond to one email invitation, one reminder email was sent. Informants

were on average 37.4 years old ( $SD = 15.9$  years), and ranged in age from 18 to 76 years old. They were 71.6% female, with ethnic backgrounds consisting of 83.2% white/Caucasian, 7.2% black/African-American, 2.4% Asian, 1.0 Native Hawaiian or Pacific Islander, 0.5% American Indian or Alaskan Native, 1.9% Hispanic/Latino, and 3.4% other. Informants were 48.1% married, 41.3% single, 5.8% divorced, 2.4% cohabiting, and 2.4% widowed. On average, informants had known the student targets 13.5 years ( $SD = 7.5$  years), reported a closeness level of  $M = 4.29$  ( $SD = 0.56$ ) on a scale from 1 (*not close*) to 5 (*closer to anyone else*), and reported a liking level of  $M = 4.42$  ( $SD = 0.56$ ), on a scale from 1 (*not at all*) to 5 (*more than anyone else*). Eighty students had one informant, 43 students had two informants, and 14 had three informants. Informant-reports regarding the same target were averaged to create a single informant-report score for each measure.

## Measures

**Five-Factor Narcissism Inventory (FFNI; Glover et al., 2012)**—The FFNI is a 148-item self-report measure of narcissism (Glover et al., 2012; Miller, Few et al., 2013; Miller et al., 2015). Items are rated on a Likert-type scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Vulnerable scales consist of Reactive Anger, Shame, Need for Admiration, and Cynicism/Distrust, while Grandiose scales consist of Indifference, Exhibitionism, Thrill-Seeking, Authoritativeness, Grandiose Fantasies, Manipulativeness, Exploitativeness, Entitlement, Arrogance, Lack of Empathy, and Acclaim-Seeking. Internal consistency of the scales ranged from  $\alpha = .76$  (Need for Admiration) to  $\alpha = .89$  (Indifference, Authoritativeness, and Thrill-Seeking), with a median  $\alpha = .85$ .

**Informant Five-Factor Narcissism Inventory (IFFNI)**—The IFFNI is an informant-version of the FFNI. For 116 of the 148 items (78%), pronouns were simply changed from “I” to “He” or “She” (e.g., “I believe I will be wealthy at some point in my life” was revised to “S/he believes s/he will be wealthy at some point in his/her life” and “I feel enraged when people disrespect me” was revised to “S/he feels enraged when people disrespect him/her”). In 32 cases, it was necessary to alter an item somewhat to retain the intended meaning and focus on the target. For example, the item, “I am a superior person,” was changed to “S/he believes s/he is a superior person” and “I deserve only the best of everything” was changed to “S/he thinks s/he deserves only the best of everything.” Internal consistency of the IFFNI scales ranged from  $\alpha = .74$  (Cynicism/Distrust) to  $\alpha = .90$  (Thrill-Seeking), with a median of  $\alpha = .87$ .

**Multi-Source Assessment of Personality Pathology (MAPP; Oltmanns & Turkheimer, 2006)**—The MAPP is a 106-item self-report questionnaire that assesses the diagnostic criteria for the ten DSM-IV-TR personality disorders in layman’s language. There is also an informant-version (IMAPP). Only the ten MAPP and IMAPP items for the assessment of NPD were included in the present study. Internal consistency for the self-report was  $\alpha = .79$  and for informants was  $\alpha = .84$ .

**Pathological Narcissism Inventory (Pincus et al., 2009)**—The PNI is a 52-item measure of grandiose and vulnerable narcissism. The PNI consists of seven scales: Exploitativeness, Self-Sacrificing Self-Enhancement, and Grandiose Fantasies, which assess

grandiose narcissism, and Contingent Self-Esteem, Hiding the Self, Devaluing, and Entitlement Rage, which assess vulnerable narcissism (Wright, Lukowitsky, Pincus, & Conroy, 2010). Participants rated the items on a 1 (*not at all like me*) to 5 (*very much like me*) scale about themselves. Only the targets completed the PNI. Internal consistency of the scales ranged from  $\alpha = .71$  (Self-Sacrificing Self-Enhancement) to  $\alpha = .94$  (Contingent Self-Esteem), with a median of  $\alpha = .84$ .

**NEO Personality Inventory-Revised and Five-Factor Inventory (Costa & McCrae, 1992)**—The NEO Personality Inventory (NEO PI-R) is a 240-item questionnaire assessing the five domains and 30 facets of the FFM. Items are rated on a Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The FFI is a 60-item abbreviated version of the NEO PI-R. Targets completed the NEO-PI-R and informants completed the informant version of the FFI (i.e., hereafter referred to as the IFFI). Internal consistency of the targets' NEO PI-R domains ranged from  $\alpha = .87$  (Openness) to  $\alpha = .91$  (Conscientiousness), with a median of  $.90$ . Internal consistency of the IFFI domains ranged from  $\alpha = .64$  (Openness) to  $\alpha = .91$  (Conscientiousness), with a median of  $.84$ .

**The SOURCE (Lawton, 2014)**—The SOURCE is a 4-item self and informant measure of social dysfunction. Items are rated on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). An example item is “I am difficult to get along with.” Both participants and informants completed this measure about the target. Internal consistency was  $\alpha = .87$  for participants and  $\alpha = .91$  for averaged informant scores.

**Inventory of Interpersonal Problems – Short Circumplex (IPP-IPC; Alden, Wiggins, & Pincus, 1990)**—The IPP-IPC is a 32-item measure of interpersonal problems organized with respect to the interpersonal circumplex. Four items were chosen from four octants of the circle that have previously been associated with narcissism (Dickinson & Pincus, 2003; Pincus et al., 2009). The items were “I argue with other people too much” (from the Domineering scale), “It is hard for me to experience a feeling of love for another person” (from the Cold scale), “It is hard for me to be supportive of another person’s goals in life” (from the Vindictive scale), and “I tell personal things to other people too much” (from the Intrusive scale). The four items were summed to create a total score. Internal consistency was  $\alpha = .67$  for participants and  $\alpha = .59$  for averaged informant scores.

**Social Success Items**—Targets and informants were also asked (1) how popular the target was compared to most others their age, (2) how many friends he or she had, and (3) how successful he or she was expected to be in the future. Items were rated from 1 (*much less*) to 5 (*much more*) and summed for a total score of “Social Success.”

## Procedure

Study protocol was approved by the local institutional review board and administered online. Student participants were first asked to nominate up to three persons (including a parent, friend, romantic partner, or other relative) to complete questionnaires about them. Recruitment emails were sent to informants providing them with information about the study. If they chose to participate, they provided informed consent online. Informants had

the option to enroll in a lottery. At the end of the study, two informants were chosen at random and provided \$50 each in cash. For all participants and informants, missing data were imputed using the expectation maximization (EM) procedure. EM has been shown to be more accurate than using mean values as substitutions (Enders, 2006).

## Results

**Descriptive Statistics**—Table 1 displays the descriptive statistics for the FFNI and IFFNI, as well as agreement between the respective scales. Targets perceived themselves as more narcissistic than their informants perceived them to be on six of the 15 scales, including three vulnerable scales (i.e., Shame, Need for Admiration, Cynicism/Distrust), and three grandiose scales (i.e., Authoritativeness, Thrill-Seeking, and Grandiose Fantasies). These differences, though, were at weak effect sizes (Cohen, 1992) for all but one of the scales (Cynicism/Distrust).

Correlations as low as .17 obtained statistically significant correlations at  $p < .05$ ; therefore, results are reported with respect to effect size (Cohen, 1992). Correlations between the FFNI and IFFNI scales indicated large effect sizes for Exhibitionism, Authoritativeness, and Grandiose Fantasies (all grandiose scales, with two from the domain of extraversion). A medium effect size relationship was obtained for the rest of the grandiose scales, with the exception of Indifference (which had a weak effect size). Correlations between self- and informant-reports on two vulnerable scales (Reactive Anger and Cynicism/Distrust) obtained medium effect sizes. Discriminant validity results (i.e., correlations of each IFFNI scale with the 14 other FFNI scales) paralleled the convergent validity, in that weak discriminant validity was evident for scales with relatively weaker convergent validity (e.g., Reactive Anger) but good discriminant validity was obtained for scales with strong convergent validity (e.g., Exhibitionism).

Mean differences on demographic (age, gender, ethnicity, years known informant, like of informant, closeness with informant) and personality (narcissistic grandiosity, narcissistic vulnerability, and FFM domain scores) variables were examined between participants who had one informant and participants who had more than one informant. An alpha level of .01 was used to control for type 1 error. The only significant difference was that participants with one informant, who was a friend, reported liking that friend more so than did participants with multiple informants,  $t(92) = 2.71, p = .008$ .

**Correlations Among Self and Informant Measures of Narcissism**—Considering the relationship of all 15 FFNI and all 15 IFFNI scales with the external validators, such as the PNI, MAPP, NEO PI-R, Social Dysfunction, and Social Success scales would result in a substantial number of correlations, much of which would be repetitive, at least with respect to the self and informant comparisons. Given the substantial interest in grandiose and vulnerable narcissism (Campbell & Miller, 2013; Pincus & Lukowitsky, 2010), these higher-order scales were selected for the current study.

**Within-perspectives:** Table 2 provides the correlations among the self and informant measures of narcissism. In this section, compared are the correlations of the informant-rated scales with the other informant-rated scales, and then the self-rated scales with other self-

rated scales (i.e., all associations within perspectives). IFFNI Grandiose and IFFNI Vulnerable obtained large effect size relationships with IMAPP narcissism. IFFNI Grandiose was uncorrelated with IFFNI Vulnerable, a finding consistent with the FFNI Grandiose and Vulnerable results. PNI Grandiose obtained a large effect size relationship with PNI Vulnerable. FFNI Vulnerable obtained a large effect size relationship with PNI Vulnerable, but only a medium effect size relationship was obtained for FFNI Grandiose with PNI Grandiose (no comparisons could be made with the IFFNI, however, as no informant version of the PNI was administered).

**Across-perspectives:** In this section, the correlations between self-rated scales and informant-rated scales are considered (i.e., across-perspective correlations). With respect to self-other agreement, IFFNI Grandiose obtained a large effect size relationship with FFNI Grandiose, whereas there was no convergence of IFFNI Vulnerable with FFNI Vulnerable. MAPP Narcissism correlated weakly with IMAPP Narcissism and IFFNI Grandiose, and failed to correlate with IFFNI Vulnerable. IMAPP Narcissism correlated weakly with FFNI Grandiose, and failed to correlate with FFNI Vulnerable.

**Correlations of Narcissism Scales with FFM Domains**—Table 2 also provides the correlations of the IFFNI and FFNI Grandiose and Vulnerable scales with the domains of the FFM, the latter assessed via self-ratings (NEO PI-R) and informant ratings (IFFI).

**Within-perspectives:** The results for IFFNI Grandiose and IFFNI Vulnerable paralleled closely the results obtained for FFNI Grandiose and FFNI Vulnerable, with the respective grandiosity scales obtaining large effect size relationships with antagonism, and the respective vulnerability scales correlating with neuroticism and secondarily antagonism. All discriminant associations (e.g., non-corresponding associations) were weak-to-medium. Table 2 also presents the results for the MAPP and IMAPP, which again obtained closely paralleled results, in each case obtaining large effect size relationships with antagonism, and no more than a medium effect relationship with any other FFM domain.

Table 2 also provides the results for PNI Grandiose and Vulnerable, administered only as a self-report. PNI Vulnerable correlated specifically with neuroticism, as did FFNI Vulnerable. PNI Grandiose, however, failed to obtain a large effect size relationship with any FFM scale, obtaining only a medium effect size relationship with antagonism (which was almost the same as that obtained for PNI Vulnerable).

**Across-perspectives:** Across perspectives, FFNI Grandiose was weakly associated with IFFI Antagonism, while IFFNI Grandiose was moderately associated with NEO PI-R Antagonism. The correlations were significantly different (Fisher  $r$  to  $z = -2.33, p < .05$ ). Thus, the more grandiose the informant said the target was, the less agreeableness the target self-reported. However, the extent to which the target believed him or herself to be grandiose was only weakly related to how antagonistic the informant believed the target to be. There was no across perspective convergence for FFNI or IFFNI Vulnerability with FFM neuroticism.



## Correlations with Social Dysfunction and Social Success Scales

**Within-perspectives:** Table 2 provides the correlations of the IFFNI and FFNI scales with the Social Dysfunction and Social Success scales. FFNI Grandiose obtained weak relationships with the two Social Dysfunction scales, and a large effect size relationship with Social Success. In contrast, IFFNI Grandiose obtained medium effect size relationships with the two informant Social Dysfunction scales, and was less strongly related with informant Social Success. Both FFNI and IFFNI Vulnerable correlated positively with Social Dysfunction (and not with Social Success). MAPP Narcissism correlated weakly with Social Dysfunction and Social Success, whereas IMAPP Narcissism obtained large effect size relationships with the two informant Social Dysfunction Scales.

**Across-perspectives:** Self-report FFNI Grandiose obtained medium effect size relationships with informant Social Success. The complementary relationship was also true, although to a weaker degree. Neither FFNI Vulnerable nor IFFNI Vulnerable related to social dysfunction or social success when assessed across perspective. The same result occurred as well for the MAPP and IMAPP Narcissism.

## Study 2

### Participants

Persons were recruited via MTurk for participation in one of two conditions: grandiose ( $n = 110$ ) or vulnerable ( $n = 111$ ). Participants were of similar age (grandiose condition  $M = 38.1$  years,  $SD = 12.2$ ; vulnerable condition  $M = 37.2$  years,  $SD = 12.7$ ) and gender (grandiose condition 57% female; vulnerable condition 58% female). In the grandiose condition, ethnic backgrounds consisted of 76% white/Caucasian, 9% black/African-American, 6% Hispanic/Latino, 4% Asian, 1% Native Hawaiian or Pacific Islander, 2% American Indian or Alaskan Native, and 3% other. In the vulnerable condition, ethnic backgrounds consisted of 81% white/Caucasian, 7% black/African-American, 5% Hispanic/Latino, 5% Asian, and 1% Native Hawaiian or Pacific Islander. Participants in the grandiose condition indicated the person they were describing was a male 63% of the time, whereas participants in the vulnerable condition indicated the person they were describing was a female 63% of the time.

### Measures

A demographic questionnaire, the IFFNI (male and female versions, depending on the gender of the target), an informant-version of the PNI, the Five Factor Form (Rojas & Widiger, 2014), the Five-Factor Model Rating Form (Mullins-Sweatt et al., 2006), and a five-item noncontent-based responding scale were administered.

**IFFNI**—Coefficient  $\alpha$  ranged from .71 (Need for Admiration) to .91 (Entitlement), with a median  $\alpha$  of .88 in the grandiose condition. Coefficient  $\alpha$  ranged from .65 (Need for Admiration) to .93 (Authoritativeness), with a median  $\alpha$  of .89 in the vulnerable condition.

**PNI**—The PNI was adapted as an informant version. For the majority of the 52 items, pronouns were simply changed from “I” to “her,” or “him.” Seven items were changed to

assess what the informant believed the target would feel, rather than what the informant would feel. For example, the self-report item “I can read people like a book,” was changed (in the female version) to “She believes she can read people like a book.” Reliabilities of the scales ranged from  $\alpha = .69$  (Self-Sacrificing Self-Enhancement) to  $\alpha = .91$  (Contingent Self-Esteem), with a median of .87 in the grandiose condition, and ranged from  $\alpha = .76$  (Self-Sacrificing Self-Enhancement) to  $\alpha = .92$  (Grandiose Fantasies), with a median of .86 in the vulnerable condition.

**Five-Factor Model Rating Form (FFMRF; Mullins-Sweatt et al., 2006)**—The FFMRF is a 30-item adjective checklist questionnaire that assesses 30 facets of the FFM. The FFMRF has been used as a self-report and as an informant-report. Items are rated on a scale from 1 to 5. Each end of a scale is labeled with trait adjectives (e.g., “sociable, outgoing” on the high end versus “withdrawn, isolated” on the low end for the Gregariousness facet). Response options are 1 (*Extremely Low*), 2 (*Low*), 3 (*Neutral*), 4 (*High*), and 5 (*Extremely High*). Coefficient  $\alpha$  ranged from .55 (Neuroticism) to .85 (Conscientiousness), with a median of .72 in the grandiose condition, and coefficient  $\alpha$  ranged from .57 (Neuroticism) to .86 (Conscientiousness), with a median of .76 in the vulnerable condition.

**Five-Factor Form (FFF; Rojas & Widiger, 2016)**—The FFF is a 30-item questionnaire that assesses 30 facets of the FFM. The FFF has been used as a self-report and as an informant-report. Each item includes a maladaptive low, normal low, normal high, and maladaptive high variant of each facet. Items are rated on a Likert-type scale from 1 to 5. Each option of each facet includes a descriptor, with a “Neutral” option in the middle. For example, for the facet of Trust, 1 = *cynical, suspicious*, 2 = *cautious, skeptical*, 3 = *neutral*, 4 = *trusting*, and 5 = *gullible*. Coefficient  $\alpha$  ranged from .45 (Neuroticism) to .84 (Conscientiousness), with a median of .70 in the grandiose condition, and coefficient  $\alpha$  ranged from .63 (Openness) to .78 (Conscientiousness), with a median of .69 in the vulnerable condition.

**Noncontent-Based Responding Scale**—Five items that gauged participant attention were included throughout the questionnaire battery. Example items include, “I have used a computer in the past two years,” and “Select strongly agree for this item.” Items were scored such that higher scores indicated non-content based responding. Five persons were excluded from the grandiose condition and eight from the vulnerable condition for sample sizes of  $n = 110$  and  $n = 111$ , respectively.

## Procedure

Study protocol was approved by the local institutional review board and administered online. In two separate conditions, participants were asked if they knew someone personally who fit the description of either a grandiose narcissist or a vulnerable narcissist. Descriptions provided to the participants were the same as those used in Gore and Widiger (2016), which were created on the basis of descriptors provided in Pincus et al. (2009). If participants indicated that they did not know a person matching the respective description, they did not

complete the study. Missing data were again imputed using the EM procedure (Enders, 2006).

## Results

Figure 1 provides the FFM descriptions provided by the FFF and the FFMRF for the grandiose and vulnerable narcissists. It is evident from Figure 1 that the FFF and FFMRF provided closely similar FFM profiles. Consistent with expectations, the grandiose narcissists were rated significantly higher (independent samples  $t$  tests of  $p < .001$ ) in antagonism and extraversion, whereas the vulnerable narcissists were rated significantly higher in neuroticism (independent samples  $t$  tests of  $p < .001$ ). No differences were found for conscientiousness. The grandiose narcissists were rated somewhat higher in openness.

Figure 2 provides the IFFNI profile description for the grandiose and vulnerable narcissists, as well as the average IFFNI description provided for the college students in Study 1. The correlation of the grandiose and vulnerable mean scores across the 15 IFFNI scales was  $r = .21$ . The grandiose narcissists obtained significantly higher scores on the IFFNI extraversion, openness, and antagonism scales, with no differences on the one conscientiousness scale. It is noteworthy, though, that the vulnerable narcissists did obtain higher elevations on the antagonism scales than the students (with little to only marginal differences on the extraversion and openness scales). The grandiose narcissists were appreciably higher than the vulnerable narcissists on Indifference,  $t = 5.99$ ,  $d = .81$ , whereas the vulnerable were appreciably higher than the grandiose on Shame  $t = 6.65$ ,  $d = .90$ . The grandiose narcissists were significantly higher than the vulnerable on Reactive Anger,  $t = 3.28$ ,  $d = .44$ . There were no significant differences between the Grandiose and Vulnerable narcissists on Need for Admiration.

Figure 3 provides the informant PNI profiles for the grandiose and vulnerable narcissists. The correlation of the grandiose and vulnerable mean scores across the 7 PNI scales was  $r = .94$ . Grandiose and vulnerable narcissists were rated the same (i.e., there were no significant differences) on the PNI vulnerable scales of Contingent Self-Esteem, Self-Sacrificing Self-Enhancement, Hiding the Self, and Devaluing. Grandiose narcissists were, however, rated significantly higher on the PNI grandiose scales of Exploitativeness,  $t = 8.15$ ,  $d = 1.10$  and Grandiose Fantasies,  $t = 4.47$ ,  $d = .60$ , but were also rated significantly higher on Entitlement Rage,  $t = 3.45$ ,  $d = .47$ , which is a PNI scale for vulnerable narcissism.

## Discussion

There is a compelling body of research to support the validity of self-report assessments of narcissism (Miller & Campbell, 2008; Pincus & Lukowitsky, 2010), but there is also research to suggest that input obtained from informant-reports is important and unique (Carlson et al., 2011; Clifton et al., 2005; Park & Colvin, 2014). Narcissism is characterized in large part by self-presentational biases, such as grandiose self-enhancement and self-promotion, that may reduce levels of self-other agreement, underestimate prevalence rates, and provide inaccurate estimates of social and occupational dysfunction (Cain et al., 2008; Klonsky et al., 2002). There is an informant measure for the PID-5 (Markon, Quilty, Bagby, & Krueger, 2013) but as yet none for any FFMPD inventory.

The present study provided initial validation evidence for an informant version of the FFNI (i.e., the IFFNI). Results within the informant-perspective supported the convergent and discriminant validity of the IFFNI. Convergent correlations were generally large and discriminant correlations were generally small. The pattern of results obtained with the FFNI Grandiose and Vulnerable scales with each other, with self-report measures of narcissism, and with the FFM domains, were closely paralleled by the results obtained when the IFFNI was correlated with other informant-based measures. In sum, the IFFNI with informants replicated well the nomological network relationships that are obtained with the self-report FFNI.

One potentially intriguing result was that the targets identified higher levels of narcissism within themselves than were identified by the informants on six of the 15 IFFNI (versus FFNI) scales, a finding that has indeed been previously observed (Lukowitsky & Pincus, 2013). This finding is inconsistent with the view that narcissistic persons would deny their narcissism. On the other hand, it does support the validity of self-report assessments of narcissism and is perhaps consistent with the finding that narcissism is unrelated to defensive responding (Sleep et al., in press). Nevertheless, despite providing higher scores on average, self-reported narcissism was more weakly related to indicators of social dysfunction and more strongly related to indicators of perceived social success. IFFNI Grandiosity obtained larger relationships with the measures of informant-perceived social dysfunction than did the FFNI with self-perceived social dysfunction. In addition, whereas self-report FFNI Grandiosity was correlated with self-perceived social success, IFFNI Grandiosity was unrelated to informant-perceived social success. In sum, these findings suggest that although narcissistic persons may be at least somewhat aware of their narcissistic traits, they nevertheless will still inflate their own perceived success and deny social dysfunction.

Findings from the present study dovetail with prior studies indicating that mean-level information provided by informants can depend on the nature of the target-informant relationship. In Study 1, as in Lukowitsky and Pincus (2013), informants were selected by the targets, and provided somewhat lower narcissism scores than the targets. Other studies, though, have reported that informants provide higher mean-level scores on narcissism than are provided by targets. This includes studies wherein the targets did not select their informants (e.g., roommates; Clifton et al., 2005), and studies of clinical patients (Miller et al., 2005). In Study 1, target-selected informants reported liking and being close to the targets, which may have affected their descriptions of the targets. Nevertheless, these informants still indicated that targets who were higher on narcissism were also higher on social dysfunction, and informants did not share the same positive view of the social success provided by targets who scored higher on narcissism.

These differences in self-reported grandiosity versus informant-reported grandiosity are consistent with prior research suggesting that informants have a more negative view of the relationships and successfulness of grandiose narcissism than would be obtained with self-reports. Self-report research has associated grandiose narcissism with adaptive, successful functioning, often attributing this to limitations in how grandiose narcissism is assessed and/or conceptualized (Cain et al., 2008; Pincus & Lukowitsky, 2010). The results of the

current study suggest that the relationship of grandiose narcissism to adaptive success might also reflect, at least in part, a tendency of self-report to exaggerate adaptive qualities and levels of social success, and deny maladaptive social functioning. Indeed, results from this study suggest that information contained in informant-reports of grandiosity is different from the information contained in self-report assessments of grandiosity. The IFFNI might then be an additional useful tool for understanding the relationship of grandiose narcissism to social outcomes (Miller, Campbell, & Pilkonis, 2007).

Prior research has typically yielded relatively weak self-other agreement for narcissism (Klonsky et al., 2002; Lukowitsky & Pincus, 2013; Miller et al., 2005; Walters et al., 2004). The current study replicated this with the MAPP and IMAPP. However, the current study also reported good self-other agreement for IFFNI Grandiose with FFNI Grandiose. Weak convergence, though, was obtained for IFFNI Vulnerable with FFNI Vulnerable. These complementary results are consistent with FFM research. A common cross-perspective finding for FFM measures is to obtain convergence for extraversion, but not for neuroticism (e.g., Connelly & Ones, 2010). This result is generally understood to reflect the fact that extraversion is interpersonal and thereby observable to the person relating to the target, whereas neuroticism is emotional and can be to a large extent internal, and unobservable, to others (e.g., Funder & Drobrot, 1987). Vulnerable narcissism has been closely associated with neuroticism (Campbell & Miller, 2013) and is explicitly conceptualized within the IFFNI and FFNI as a trait of neuroticism, whereas FFNI and IFFNI Grandiosity place more emphasis on traits of extraversion (Miller et al., 2016). Indeed, two of the three IFFNI scales that obtained the highest self-informant convergence were from the extraversion domain. In sum, the self-other agreement found between the IFFNI and the FFNI was consistent with and informed by the research on general personality structure, the FFM in particular.

IFFNI Grandiose and Vulnerable were uncorrelated with one another and obtained relatively distinct relationships with FFM antagonism and neuroticism, respectively. These results are consistent with prior research with the FFNI (e.g., Miller, Gentile et al., 2013). In contrast, PNI Grandiose obtained a large effect size relationship with PNI Vulnerable and a less distinct relationship with FFM domains. PNI Vulnerable did converge specifically with neuroticism, but PNI Grandiose was weakly related with all five FFM domains. This result is also consistent with prior research with the PNI (Miller et al., 2011).

In Study 2, informants were asked to describe a grandiose and a vulnerable narcissist in terms of the FFM. Grandiose narcissists were rated as significantly more extraverted and antagonistic, while vulnerable narcissists were rated as significantly higher in neuroticism. These results are consistent with prior research with the self-report FFNI and with expert ratings of grandiose and vulnerable narcissism (Miller et al., 2014).

Most striking, perhaps, was the very similar profile obtained with the informant PNI ratings for the grandiose and vulnerable narcissists. The PNI profiles were highly correlated ( $r = .94$ ), and four of the seven PNI scale means were not significantly different for the grandiose versus vulnerable narcissists. This could be due to weak validity for our informant-version of the PNI, an unvalidated measure constructed for the purposes of this study. On the other hand, the result is also consistent with prior research obtaining moderate to large correlations

of self-report PNI Grandiose with self-report PNI Vulnerable ( $r = .66$  in Study 1) as well as at times correlating as highly with other measures of vulnerable narcissism as with measures of grandiose narcissism (Glover et al., 2012). There may be a good deal of vulnerability within the PNI assessment of grandiose narcissism (Miller et al., 2011, 2014).

In contrast, the participants did view the grandiose narcissist as being higher in the antagonistic and extraverted scales of the IFFNI. The grandiose narcissists were also higher on Indifference whereas the vulnerable were higher on Shame. Nevertheless, there was no significant difference between the grandiose and vulnerable narcissists on IFFNI Need for Admiration or Reactive Anger, both scales considered to be assessing for vulnerable narcissism.

These results, though, parallel closely the findings of Gore and Widiger (2016) with respect to possible episodes of vulnerability within grandiose narcissists. They asked clinical psychology professors and clinicians to identify a grandiose narcissist and rate that person on traits of vulnerable narcissism (as well as the grandiose traits). Both the professors and the clinicians reported that the grandiose narcissists, for a significant period of time, did not respond well to criticism or rebuke, evidenced anger or shame when their special status was threatened, felt extremely upset when treated unjustly, and craved admiration from others. These results parallel closely the findings for IFFNI Reactive Anger and Need for Admiration, as well as the findings for informant-PNI Entitlement Rage. Grandiose narcissists may indeed evidence significant episodes of vulnerability.

### Limitations and Future Directions

The present study is limited in that targets in the first study were from a student sample. The informants represented a more diverse community sample, but it would be useful in future research to have the targets be sampled from a clinical population. The targets in the second study were identified by the informants as being persons who exemplified either grandiose narcissism or vulnerable narcissism. It is perhaps possible that different grandiose and vulnerable narcissists would be identified if the participants were sampled from a population other than MTurk, but there is no apparent reason to expect such a finding to occur. Nevertheless, it would be useful to test this hypothesis empirically.

An advantage of the first study was the large number of informants that were recruited to describe the student targets. However, an additional limitation, always relevant to studies using target-solicited informants, is that targets usually nominate informants who they like and who like them (Klonsky et al., 2002; Leising, Erbs, & Fritz, 2010). The informants sampled in the current study did nevertheless provide a more negative description of the targets than was provided by the target themselves. Such negative descriptions might be even more prominent if the informants were not selected by the targets.

Finally, there are multiple methods for examining self-other agreement, beyond those used in the current study, such as discrepancy scores and polynomial regression. These statistical approaches are more commonly used in the developmental self-informant research (Laird & De Los Reyes, 2013) and their consideration in future adult self-informant research may also be advantageous.

## Conclusions

Evidence provided by the current study suggests that the IFFNI might be a useful measure of narcissism that would supplement or complement the more traditional and commonly used self-report assessments. The current study found self-informant agreement for grandiose narcissism, but informants reported a greater association of these traits with social dysfunction, whereas selves reported greater association with social success. There was no self-informant convergence for vulnerable narcissism. Grandiose and vulnerable narcissists obtained expected differences on most of the IFFNI scales, but there were few differences on scales of an informant version of the PNI. However, on the IFFNI neuroticism scales concerning reactive anger and need for admiration, the results were inconsistent with expectations. These findings, though, are consistent with the hypothesis that grandiose narcissists will at times display some traits of vulnerable narcissism.

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**Public Significance Statement**

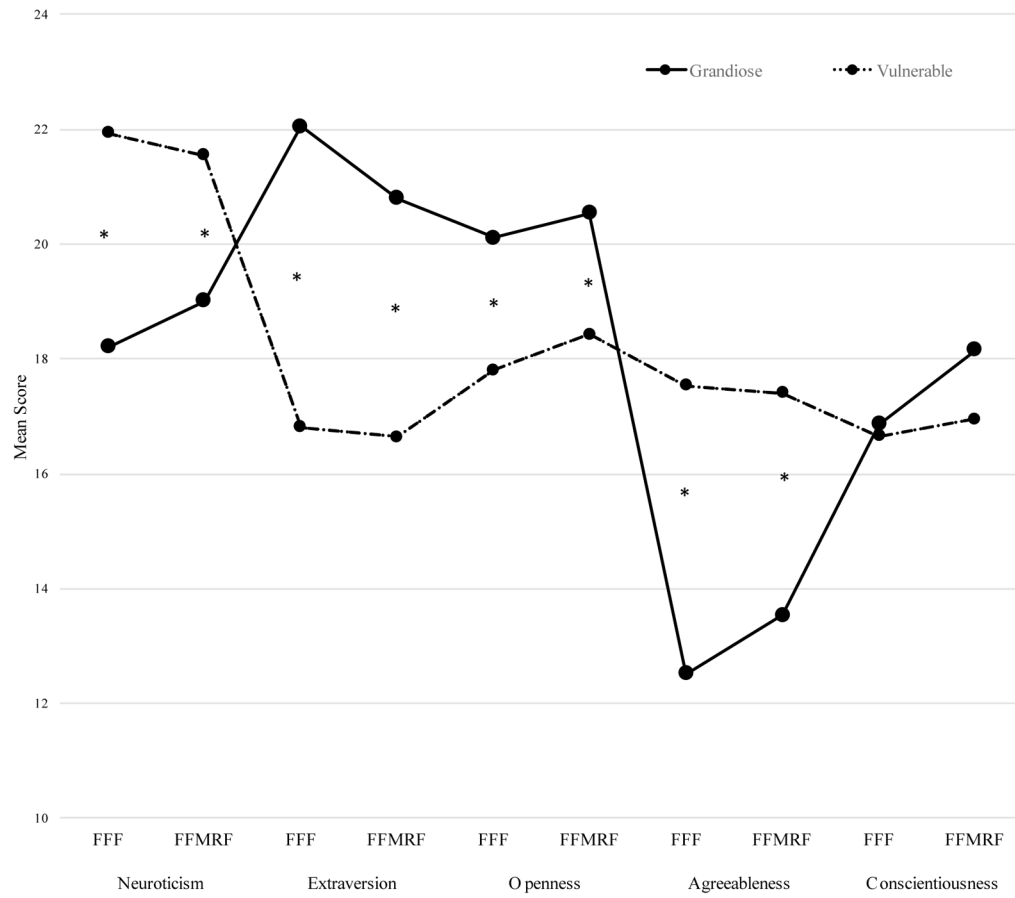
Narcissism is a personality disorder for which it might be very difficult to rely on self-report for its assessment, given that self-enhancement is inherent to the disorder. The present study developed the Informant Five-Factor Narcissism Inventory, and examined relations between informant- and self-reported narcissism and social functioning.

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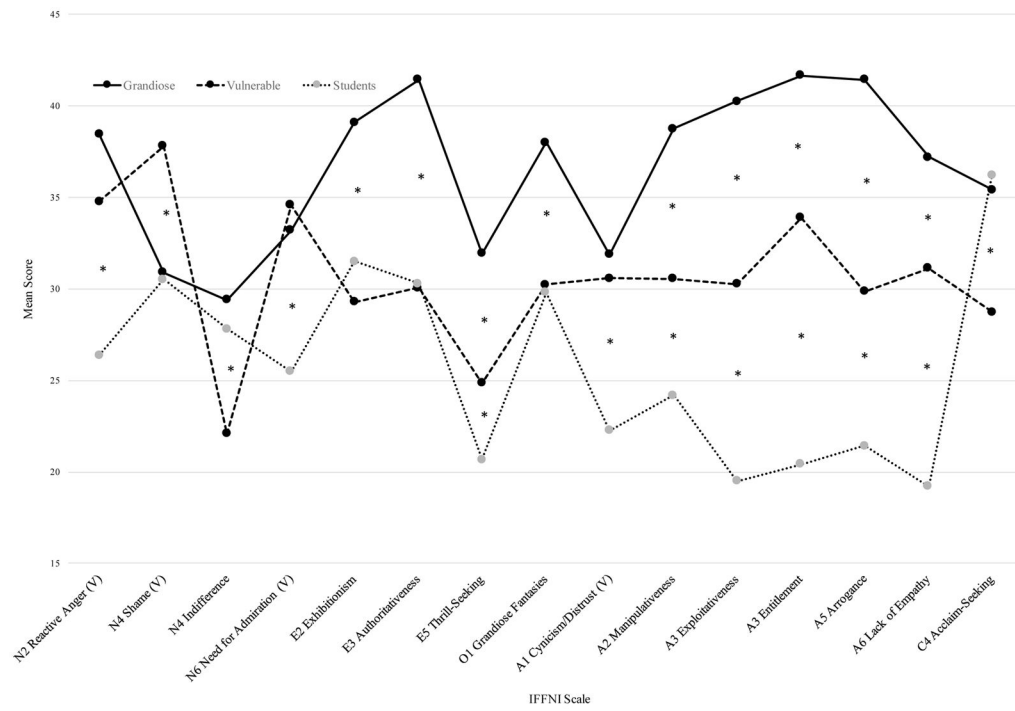
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**Figure 1.** Informant-report FFM profiles of grandiose and vulnerable narcissists.  
*Note.* \*  $p < .001$ . FFF = Five-Factor Form, FFMRF = Five-Factor Model Rating Form.



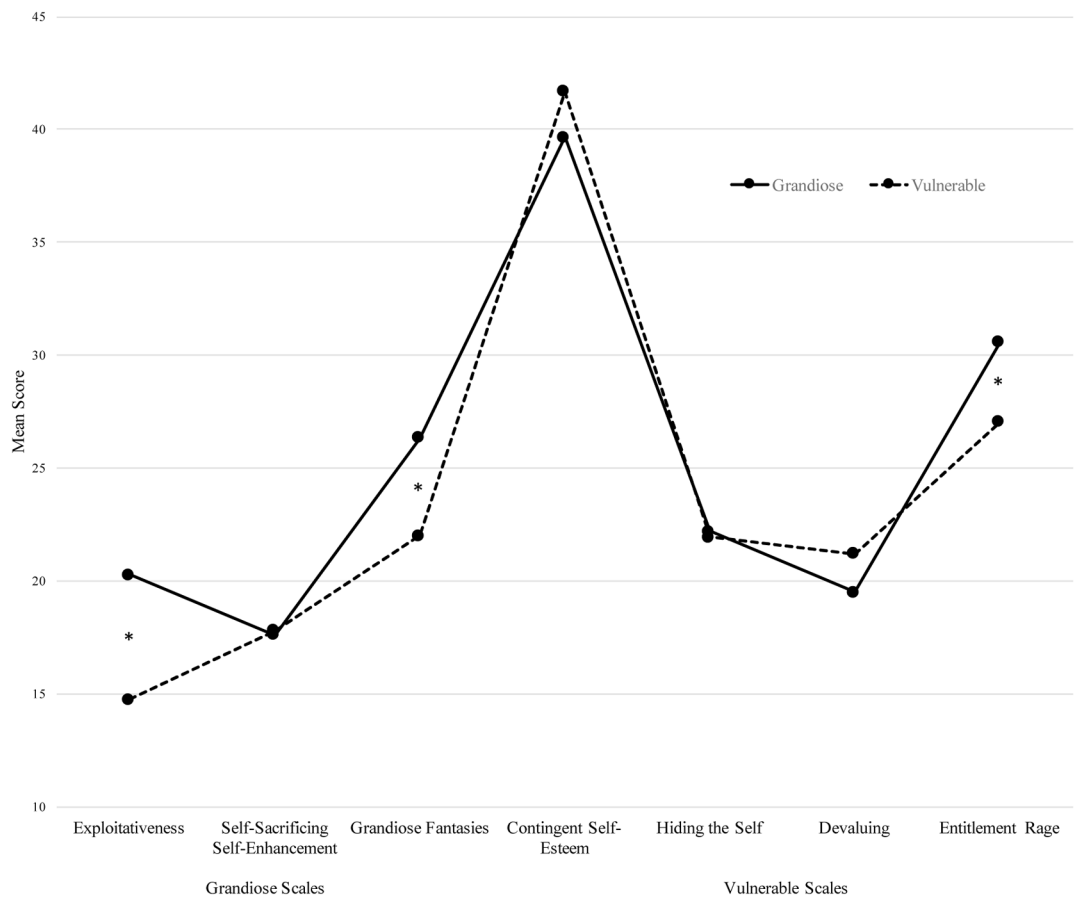
**Figure 2.** IFFNI profiles of grandiose narcissists, vulnerable narcissists, and students.  
*Note.* \*  $p < .001$ . V = Vulnerable scale.

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**Figure 3.**  
Informant PNI profiles of grandiose narcissists and vulnerable narcissists.  
*Note.* \*  $p < .001$ .

Table 1

FFNI and I-FFNI Subscale Descriptive Statistics

Scale	Perspective	$\alpha$	$M$	$SD$	$r$	$t$	$d$
N2 Reactive Anger <sup>v</sup>	Self	.83	26.30	6.85			
	Informant	.87	24.39	7.02	.31	1.70	.28
N4 Shame <sup>v</sup>	Self	.85	32.53	6.80			
	Informant	.89	30.51	6.94	.11	3.13 <sup>***</sup>	.29
N4 Indifference	Self	.88	27.39	7.19			
	Informant	.89	27.83	6.71	.25	-1.61	-.06
N6 Need for Admiration <sup>v</sup>	Self	.75	27.67	5.80			
	Informant	.83	25.48	6.03	.16	3.60 <sup>***</sup>	.37
E2 Exhibitionism	Self	.86	32.55	7.39			
	Informant	.82	31.49	6.62	.64	0.77	.15
E3 Authoritativeness	Self	.90	32.53	7.40			
	Informant	.84	30.29	6.08	.63	3.02 <sup>**</sup>	.33
E5 Thrill-Seeking	Self	.89	23.66	7.55			
	Informant	.90	20.67	7.02	.45	3.87 <sup>***</sup>	.41
O1 Grandiose Fantasies	Self	.80	32.66	6.54			
	Informant	.87	29.81	6.77	.53	3.77 <sup>***</sup>	.43
A1 Cynicism/Distrust <sup>v</sup>	Self	.80	25.08	6.20			
	Informant	.74	22.26	4.72	.33	4.52 <sup>***</sup>	.51
A2 Manipulativeness	Self	.86	24.94	7.11			
	Informant	.84	24.19	6.54	.39	0.30	.11
A3 Exploitativeness	Self	.87	20.99	6.81			
	Informant	.89	19.50	6.56	.30	1.40	.22
A3 Entitlement	Self	.82	19.93	5.52			
	Informant	.89	20.41	6.92	.25	-1.48	-.08
A5 Arrogance	Self	.77	21.36	5.46			
	Informant	.84	21.43	6.32	.36	-1.61	-.01
	Self	.82	18.42	5.50			

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Scale	Perspective	$\alpha$	<i>M</i>	<i>SD</i>	<i>r</i>	<i>t</i>	<i>d</i>
A6 Lack of Empathy	Informant	.88	19.20	6.33	.40	-1.76	-.13
	Self	.84	37.74	5.72			
C4 Acclaim-Seeking	Informant	.88	36.23	6.70	.43	1.76	.24

Note.

<sup>v</sup> vulnerability scale, *d* = Cohen's (1992); bold = large effect size, italics = medium effect size (Cohen, 1992).

\*\*\*  
*p* < .001.

\*\*  
*p* < .01

**Table 2**  
Correlations Among Self and Informant Narcissism, FFM, and Social Functioning Scales

Scale	Narcissism Scale									
	FFNI G	FFNI V	MAPP	PNI G	PNI V	IFFNI G	IFFNI V	IMAPP		
FFNI V	.11									
MAPP	<b>.59</b>	<i>.39</i>								
PNI G	<i>.47</i>	<i>.39</i>	<b>.55</b>							
PNI V	.23	<b>.69</b>	<b>.56</b>	<b>.66</b>						
IFFNI G	<b>.56</b>	-.02	.28	.17	.01					
IFFNI V	.02	.13	.05	.00	.04	.27				
IMAPP	.27	-.04	.29	.09	.04	<b>.65</b>	<b>.57</b>			
NEO N	-.14	<b>.67</b>	.19	.29	<b>.58</b>	-.19	.11	-.06		
NEO E	<i>.39</i>	-.27	.09	.17	-.14	.23	-.02	.03		
NEO O	-.04	.09	-.03	.29	.04	-.08	-.02	-.09		
NEO A	<b>-.64</b>	<b>-.42</b>	<b>-.53</b>	<b>-.32</b>	<b>-.30</b>	<b>-.46</b>	<b>-.12</b>	<b>-.34</b>		
NEO C	-.13	-.25	-.10	-.08	-.23	-.06	-.06	-.09		
IFFNI N	-.16	.22	.03	.03	.11	.05	<b>.68</b>	<i>.41</i>		
IFFNI E	<i>.33</i>	.01	.10	.21	.08	.24	-.30	-.11		
IFFNI O	.07	.10	-.02	.18	.02	-.05	-.10	-.10		
IFFNI A	-.21	-.11	-.15	-.05	-.05	<b>-.59</b>	<b>-.53</b>	<b>-.62</b>		
IFFNI C	-.04	-.10	-.04	.02	-.09	-.21	-.46	-.39		
SOURCE	.02	<i>.42</i>	.18	.09	.27	-.03	.11	.05		
IPP	.23	<i>.36</i>	.25	.27	.32	-.01	.03	-.07		
Social Success	<b>.56</b>	-.13	.26	.27	.05	<i>.41</i>	-.07	.17		
ISOURCE	.13	.07	.15	.01	.10	.47	<b>.55</b>	<b>.66</b>		
IIPP	.13	.10	.27	.14	.12	.38	<i>.41</i>	<b>.57</b>		
I-Social Success	<i>.48</i>	.04	.26	<i>.31</i>	.12	.30	-.17	.02		

Note. FFNI = Five-Factor Narcissism Inventory, PNI = Pathological Narcissism Inventory, MAPP = Multi-Source Assessment of Personality Pathology, I = informant-report, G = grandiosity, V = vulnerability, NEO = NEO-Personality Inventory-Revised, FFI = Five-Factor Inventory. Large effect sizes (.50 or above) are in bold, medium effect sizes (i.e., .30 to .49) in italics (Cohen, 1992).