

## A Principal-Components Analysis of the Narcissistic Personality Inventory and Further Evidence of Its Construct Validity

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We examined the internal and external validity of the Narcissistic Personality Inventory (NPI). Study 1 explored the internal structure of the NPI responses of 1,018 subjects. Using principal-components analysis, we analyzed the tetrachoric correlations among the NPI item responses and found evidence for a general construct of narcissism as well as seven first-order components, identified as Authority, Exhibitionism, Superiority, Vanity, Exploitativeness, Entitlement, and Self-Sufficiency. Study 2 explored the NPI's construct validity with respect to a variety of indexes derived from observational and self-report data in a sample of 57 subjects. Study 3 investigated the NPI's construct validity with respect to 128 subjects' self and ideal self-descriptions, and their congruency, on the Leary Interpersonal Check List. The results from Studies 2 and 3 tend to support the construct validity of the full-scale NPI and its component scales.

As other psychological constructs come and go, the concept of narcissism has had a long, and in many ways, formidable history. Narcissism was first introduced into psychological literature in 1898, when Havelock Ellis used the term *Narcissus-like* to refer to "a tendency for the sexual emotions to be lost and almost entirely absorbed in self admiration" (Ellis, 1898). Shortly after this reference appeared, Nacke (1899) wrote a German summary of the Ellis paper in which he used the term *Narcismus* to refer to a sexual perversion whereby a person treats his or her own body as a sexual object. Although Nacke was an obscure figure in German psychiatry at the time, his reference to narcissism caught Freud's attention. Apparently the concept of narcissism made a deep impression on Freud, for by 1914 narcissism had become a focal construct in his metapsychological and clinical thinking, so much so that contemporary historians of the psychoanalytic movement generally agree that Freud's explorations into narcissism were central to the development of his (a) structural model (id, ego, and super-ego); (b) concept of the ego ideal and subsequently the superego; (c) shift from an id psychology to an ego psychology; and (d) object relations theory (e.g., Fine, 1986; Moore, 1975; Sandler, Holder, & Dare, 1976; Tiecholz, 1978).

As with many of Freud's more important concepts, his thinking pertaining to narcissism tended to follow two separate yet interdependent lines of development. On the one hand, narcissism served as an aid for his metapsychological theorizing, whereas on the other, narcissism served as a diagnostic category that he used to refer to a variety of observable clinical phenom-

ena. In both of these veins, Freud's uses for the term *narcissism* were multifaceted. As a metapsychological construct, Freud used the term narcissism (a) to describe a stage of normal sexual development that occurred between the stages of autoeroticism and object love; (b) as the original source and energy for the development of the ego; (c) as a type of object (or interpersonal) choice in which the self plays a more important part in the object relationship than the real aspects of the object; (d) as a mode of relating to the environment that is characterized by a relative lack of object or interpersonal relations; (e) as a mechanism for the establishment of the ego's ideals; (f) as a primary ingredient in the development and maintenance of self-esteem; and (g) as a conditioning factor of repression (Freud, 1914/1957, 1923/1961; see also reviews on narcissism by Bing, McLaughlin, & Marburg, 1959; Duruz, 1981; Moore, 1975; Pulver, 1970; and Tiecholz, 1978).

In contrast to these highly abstract metapsychological formulations, Freud's clinical uses for the term narcissism included the following behavioral phenomena: (a) a set of attitudes a person has toward oneself, including self-love, self-admiration, and self-aggrandizement; (b) several kinds of fears or vulnerabilities related to a person's self-esteem that include the fear of loss of love and the fear of failure; (c) a general defensive orientation that includes megalomania, idealization, denial, projection, and splitting; (d) motivation in terms of the need to be loved, as well as strivings for self-sufficiency and for perfection; and (e) a constellation of attitudes that may characterize a person's relationships with others. This constellation includes exhibitionism, feelings of entitlement involving the expectation of special privileges over others and special exemptions from normal social demands, a tendency to see others as extensions of oneself, feelings and thoughts of omnipotency involving the control of others, an intolerance for criticism from others that involves the perception of criticism as a demand for changing oneself, a tendency to be critical of others who are different from oneself, suspiciousness, jealousy, and a tendency to focus on one's own mental products.

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Free copies of the Narcissistic Personality Inventory are available to anyone who wishes to use it for research purposes.

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Although Freud's uses for the term narcissism have had a profound influence on contemporary psychoanalytic thinking (Fine, 1986; Moore, 1975; Tieholz, 1978), this influence has in many ways proved to be a double-edged sword. On the one hand, his metapsychological theorizing has led to a matrix of confusion surrounding the meaning and appropriate usage of the construct. This confusion has made narcissism a near ubiquitous term used to describe "all human efforts," "man's most sublime aspirations," and even "the guiding motive of nature herself" (Ellis, 1927). On the other hand, Freud's clinical uses of the narcissism concept have stimulated important contemporary clinical advances in understanding the etiology of narcissistic disturbance. This etiology will often involve difficulties originating in the separation-individuation phase of infant development that lead to conflict surrounding issues of dependency versus autonomy and difficulties originating in unempathic parenting (particularly mothering) in which the parent uses the narcissistically cathected child to fulfill her or his own unsatisfied needs for admiration, praise, recognition, and achievement (Kernberg, 1975; Kohut, 1971; Mahler, 1972; Mahler & Kaplan, 1977; Miller, 1981). Other clinical advances stimulated by Freud's writings include (a) a recognition of the important role that aggression plays in narcissism, particularly as it involves the devaluation of others as a defense against the fear of loss of love and the depression that typically occurs when this fear becomes reality (Kernberg, 1975; Miller, 1981); (b) a recognition that the defense process of splitting (i.e., the separating of positive and negative affectively laden images of oneself) is a central feature of narcissistic disturbance (Kernberg, 1975); and (c) a recognition that narcissistic disturbance involves the lack of an internalization of mechanisms (e.g., cognitive structures, affectively laden images, etc.) to regulate self-esteem so that there is an unconscious dependency on external sources of gratification and love (Kernberg, 1975; Kohut, 1971). This unconscious dependency on external sources of love represents a significant source of vulnerability that must be defended against by narcissistic defenses aimed at creating the illusion of self-sufficiency (Modell, 1975). According to Kernberg, this disturbance in the regulation of self-esteem is related to a lack of differentiation among an individual's self-representations, ideal self-representations, and ideal object representations.

As a result of clinical psychology's intense interest in narcissistic phenomena, and in light of the clinical advances that have been made in pursuing this interest, the American Psychiatric Association has recently included the construct of narcissism in its diagnostic nosology. According to the most recent version of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III; American Psychiatric Association, 1980), the narcissistic personality is defined by the following clinical criteria: a grandiose sense of self-importance or uniqueness; a preoccupation with fantasies of unlimited success, power, brilliance, beauty, or ideal love; exhibitionism; an inability to tolerate criticism, the indifference of others, or defeat; entitlement or the expectation of special favors without assuming reciprocal responsibilities; interpersonal exploitativeness, relationships that alternate between extremes of overidealization and devaluation; and a lack of empathy.

Given this relatively concrete picture that has emerged over 70 years of clinical observation of narcissistic phenomena, one

could expect that the empirical development of the narcissism construct would be fairly substantial. Strangely enough, this has not been the case. Whereas clinical interest in narcissism has produced close to 1,000 books and articles on the subject (Bader & Philipson, 1980, noted that in 1977 alone the Chicago Psychoanalytic Index listed close to 100 publications on narcissism), quantitative research in psychology has produced fewer than 50 articles that are related directly to the measurement or empirical exploration of narcissism. Of these few studies that have focused on an empirical exploration of narcissism, approximately one half were devoted to the development of scales to measure narcissism, whereas the other half produced validation evidence for one or more of those scales. Most of the attempts to measure narcissism tend to fall into one of two global categories. The first category includes scales that attempt to measure narcissism as it represents one variable in a taxonomy of several other variables. In this category are Murray's (1938) efforts to develop a Narcism scale as a part of his general taxonomy of manifest needs, latent needs, inner states, and general states, and Blum's (1950) efforts to develop a projective measure of narcissism to reflect 1 of 10 psychosexual stages of development. There are also Krout and Tabin's (1954) and Grygier's (1961) efforts to include narcissism in their respective taxonomies of psychosexual development; Leary's (1956) inclusion of narcissism in his taxonomy of 16 interpersonal behavior descriptors; Cattell, Horne, Sweney, and Radcliffe's (1964) inclusion of Narcism in their motivational taxonomy of ergs and sentiments; and recent efforts by Millon (1982), Hyler, Reider, and Spitzer (1982), and Morey, Waugh, and Blashfield (1985) to measure the narcissistic personality as part of a taxonomy of DSM-III personality disorders.

To date there has been little validation evidence for any of these measures of narcissism. In the case of the pre-DSM-III scales, part of this lack of validation evidence may be due in part to the simple fact that the narcissism construct somehow got lost in the myriad of other taxonomic variables available for researchers to pursue. A case in point is Murray's (1938) measure of Narcism. Although many of the variables in Murray's personality system have received considerable attention over the years (e.g., Jackson's [1976] Personality Research Form, Edwards's [1954] Personal Preference Schedule, Gough and Heilbrun's [1965] Adjective Check List), the concept of narcissism has not been included in any of the instruments developed to operationalize the Murray model. In the case of the more recently developed, or post-DSM-III measures of narcissism, such as Millon's (1982) Narcissistic Personality scale, the apparent lack of validation evidence may be due to the lack of adequate testing of these scales.

The second category of empirical efforts to measure narcissism includes scales that were developed apart from any taxonomic considerations, where narcissism is the principle variable of interest. In the observer rating domain, Goldman (1977) and Windholz (1979) developed scales to assess narcissistic psychopathology, Carillio (1981) developed a scale to measure an individual's level of borderline-narcissistic functioning, and Patton, Connor, and Scott (1982) developed a set of rating scales that attempted to operationalize significant aspects of Kohut's (1971) theory of narcissism. In the projective testing domain, Grayden (1958) constructed a Q-sort for use with the Thematic

Apperception Test (TAT) to measure narcissism, Douval and Edelson (1966) developed five open-ended questions to measure narcissism in adolescence, Wolman (1967) developed a word definition task to measure narcissistic or egocentric perception, and Exner (1969) developed a Rorschach scoring category (reflection responses) as an index of narcissism. Also in the projective domain, Harder (1979) developed scoring indexes for the Rorschach, the TAT, and the Early Memories Test, which purport to assess the ambitious-narcissistic character style, and Urist (1977) developed a Rorschach Mutuality of Autonomy scale that purportedly reflects developmental levels of secondary narcissism. In the self-report domain, Watson (1965) constructed a sentence-completion task to measure narcissistic fantasies, Rothburt (1970) developed an instrument to measure narcissistic exhibitionism that he termed *cynosural narcissism*, and Ashby, Lee, & Duke (1979) developed a criterion group-based scale using Minnesota Multiphasic Personality Inventory (MMPI) items that attempts to assess the narcissistic personality disorder. In addition, Serkownek (1975) developed a factor analytically derived scale for Hypersensitivity-Narcissism from items in the MMPI Masculinity-Femininity scale, Raskin and Hall (1979) developed the Narcissistic Personality Inventory (NPI) to measure individual differences in narcissism in non-clinical populations, and Thomas (1981) constructed a scale to measure narcissistic personality characteristics described in the DSM-III.

Of the various measures of narcissism that have been developed, the NPI has received the most empirical attention to date. The NPI was originally developed to explore individual differences in narcissism, as those differences may be expressed in nonclinical populations. Using the DSM-III behavioral criteria for the narcissistic personality as a conceptual template, we rationally developed a list of 220 dyadic items that we believed reflected narcissistic sentiments. We then piloted our measure on a group of undergraduate students (Raskin & Hall, 1979) and used an internal consistency and item-total correlation strategy to cull items from the 220-item domain to represent the general construct of narcissism. This procedure produced an 80-item NPI that we then used in a construct validity study aimed at exploring a hypothesized relationship between narcissism and creativity (Raskin, 1980). In a series of published (Raskin & Hall, 1981) and unpublished follow-up studies, we continued using an internal consistency approach to further cull the 80-item NPI. These analyses produced a 54-item measure of narcissism with high internal consistency (the alphas ranged from .80 to .86 across several studies). Since then there have been several published studies that have provided a modicum of construct validity for the measure (Auerbach, 1984; Biscardi & Schill, 1985; Emmons, 1981, 1984, 1987; Leak, 1984; Phares & Erskine, 1984; Prittera & Ryan, 1984; Raskin & Shaw, in press; Robbins & Patton, 1985; Watson, Grisham, Trotter, and Biderman, 1984; Watson, Hood, Foster, & Morris, in press; Watson, Hood, & Morris, 1984; Watson, Hood, Morris, & Hall, in press; Watson, Taylor, & Morris, 1987). Although these studies are not conclusive regarding the validity of the measure, they do suggest that the NPI is a viable and perhaps promising measure for the general construct of narcissism.

However, as much as the NPI may aid researchers in developing a fuller understanding of narcissism, we believe that the po-

tential usefulness of the scale has been limited by the construction strategy initially chosen to develop the measure. In relying exclusively on an internal consistency strategy, which tends to ignore important subcomponents of a construct in favor of aggregating those components into an undifferentiated general construct reflected by a total score, we have managed to lose sight of the theoretical and clinical complexities that have been historically inherent in the narcissism construct. In the theoretical realm, narcissism has been used to describe and explain such diverse processes as the maintenance and regulation of self-esteem (Freud, 1914/1957; Stolorow, 1975; Val, 1982) as well as a principle process involved in the formation of interpersonal relations (Freud, 1914/1957; Moore, 1975; Pulver, 1970; Tieholz, 1978). In the clinical realm, the concept of narcissism has evolved as a descriptor for a syndrome of diverse yet interdependent mental processes and behaviors such as interpersonal exploitativeness and exhibitionism. Given this broad use of the concept, it appears that narcissism would be best construed as a higher order construct that describes diverse yet interdependent mental and behavioral phenomena. If this is the case, then an instrument that purports to measure the construct of narcissism should reflect the multidimensionality inherent in the construct itself. The NPI, in its current state of development, does not fulfill this ideal. In fact, the strategy we used in developing the scale has only managed to work in the opposite direction, in that it has undermined our original conceptual rationale of developing an item pool that would fully reflect the DSM-III behavioral criteria for the narcissistic personality. Recognizing the inadequacies involved in the current empirical status of the scale, we started a research program in which we will attempt to retool the measure by incorporating multivariate procedures in our continuing efforts to refine and revise the NPI.

Because a multivariate analysis of narcissism represents a step into uncharted waters, we were fortunate to find that Emmons (1984, 1987) had already tested those waters. Using a principal-components analysis with an oblique rotation procedure on the NPI protocols of 451 college students, Emmons (1984) found four NPI components that he tentatively labeled Exploitativeness/Entitlement, Leadership/Authority, Superiority/Arrogance, and Self-Absorption/Self-Admiration. Using the pattern loadings as a selection guide, Emmons then developed four unit-weighted component scales to represent the four factors of the NPI and presented validity evidence for the four component scales in the self-report and peer-rating domains. In a follow-up study, Emmons (1987) used principal axes factor analysis with an oblique rotation on the protocols of 381 undergraduates and found the same four NPI components he had discovered in his earlier work. Additional evidence for the validity of the four unit-weighted scales developed from these analyses has been reported in several studies (Watson, Grisham, Trotter, & Biderman, 1984; Watson, Hood, Foster, & Morris, in press; Watson, Hood, Morris, & Hall, in press; Watson, Taylor, & Morris, 1987).

A review of the pattern loadings in Emmons's (1984, 1987) reports suggested that several items loading on the same factors seemed to be addressing somewhat different conceptual dimensions. We concluded from this observation that Emmons had used a conservative selection criterion in his decision to retain only four NPI factors, so that one or more of the latent dimen-

sions underlying subjects' responses to the items in the scale were not made manifest in his analyses. Secondly, Emmons' factor analyses were based on a factoring of interitem phi coefficients, and in the case of dichotomous items, an analysis of tetrachoric correlations can often provide a clearer view of the latent item structure that underlies the interindividual differences in the response characteristics of a test (Carroll, 1961; Glass & Stanley, 1970; Thurstone, 1947).

Given these observations, and our intentions of reworking the NPI into an instrument that better reflects the complexities that are inherent in the narcissism construct, we decided to conduct a modification and extension of Emmons's (1984, 1987) analyses. In the first study, we conducted a principal-components analysis of the tetrachoric correlations of the NPI responses of 1,018 subjects. In the second study, we explored the construct validity of our general measure of narcissism and its factorially derived components with respect to a variety of observational and self-report indexes. In the third study, we explored the construct validity of the full-scale NPI and its components with respect to the Leary circumplex of interpersonal behavior.

## Study 1

### *Method*

In order to examine the internal structure and multidimensionality of the NPI, we analyzed the NPI protocols of 1,018 subjects. All subjects were undergraduate students who attended the University of California at Berkeley or the University of California at Santa Cruz between 1979 and 1985 and who completed the 54-item NPI during their participation in one of several research projects conducted during that time. The aggregated sample consisted of 479 men and 529 women ranging in age from 17 to 49 years (mean age = 20 years;  $SD = 6.7$  years).

Because the narcissism construct has developed as a rubric to describe a syndrome of diverse yet interdependent behaviors, and because the American Psychiatric Association has identified eight behavioral dimensions that are subordinate to the narcissism construct, we expected that a meaningful principal-components analysis of the NPI item pool would produce evidence for a general component of narcissism as well as evidence for roughly eight interrelated components. Evidence for a general component of narcissism can be satisfied by meeting the following methodological criteria: (a) The interitem correlation matrix exhibits no significant negative correlations. (b) The first unrotated component has an eigenvalue that is substantially greater than the eigenvalue of the next largest component. (c) All of the items show positive nontrivial loadings on the first unrotated principal component. (d) The rotated component pattern shows no substantial negative loadings. (e) The intercomponent correlation matrix exhibits no significant negative correlations, and each component is positively correlated with two or more of the other components. (f) A principal-components analysis of the first-order component intercorrelation matrix produces a higher order first unrotated component that accounts for a substantial proportion of the intercomponent variance, and all of the components show nontrivial positive loadings on that higher order first unrotated component.

### *Results*

In the first series of analyses, we examined the response characteristics of the 54 NPI items to determine whether each of the items was behaving in a monotonic fashion in relation to the full-scale NPI score. We conducted this analysis by segmenting the overall distribution of NPI scores into 10 groups ranging

from low to high scorers. We then examined the percentage of frequency of item endorsements for each of the NPI items across each of the 10 groups using chi-square procedures. Of the 54 items, 7 showed distinctly nonmonotonic patterns in relation to the overall distribution of full-scale NPI scores. The lack of monotonicity of these items was further reflected in a second analysis we conducted in which we examined the corrected item-total correlations for each of the 54 items. Again, the same 7 items showed negative or near-zero correlations with the total scale scores. On the basis of these two analyses, we decided to drop those 7 items, leaving the NPI with an item pool of 47 items.

In our next analysis we subjected the 47-item NPI to a principal-components analysis. The significant features of this analysis were that (a) interitem tetrachoric coefficients were analyzed instead of interitem phi coefficients; (b) we used a weighted promax oblique rotation procedure; (c) we used a solution selection criterion whereby each component retained must have had a minimum of 3 items loading univocally (approximately .50 and higher) on that component; and (d) there would be no substantial negative item loadings in the pattern matrix that could not be reflected. Of the various solutions we tried, the one that best met our criteria was a seven-factor solution that accounted for 49% of the total NPI variance. However, 3 of the NPI items showed significant negative loadings in the pattern matrix, and 4 of the items did not contribute to the cluster structure of the scale, in that they did not significantly load on one or more of the components. Accordingly, we dropped these 7 items and reanalyzed the remaining 40-item pool. This analysis produced a seven-component solution that accounted for 52% of the total NPI variance and the following relevant features: The observed interitem correlation matrix contained no significant negative correlations, with the largest being  $-.08$ . The eigenvalue ( $\lambda$ ) of the first unrotated principal component ( $\lambda_1 = 9.07$ ) was over three times greater than the eigenvalue of the next largest component ( $\lambda_2 = 2.75$ ). All of the NPI items showed positive loadings on the first unrotated principal component, although 2 of the items did show loadings that were below .20 (.18 and .10, respectively). The rotated component pattern showed few negative loadings and none greater than  $-.30$ . The average calculated item communality for the 40 items was .52. Each of the seven components had a minimum of 3 marker items that univocally loaded at .50 or greater on that component. The variance component associated with each rotated component exceeded a value of 2.0. Finally, the largest negative correlation in the intercomponent correlation matrix was a trivial  $-.04$ , whereas the average intercomponent correlation was .22. Furthermore, each of the seven components showed a correlation of .20 and above with at least two other components. On the basis of the marker item content, we tentatively named the seven NPI components Authority, Self-Sufficiency, Superiority, Exhibitionism, Exploitativeness, Vanity, and Entitlement. Table 1 shows the component structure of the 40-item NPI.

In an effort to obtain more evidence for a general factor in the NPI, we subjected the intercomponent correlation matrix to a principal-components analysis. This analysis produced a first unrotated component that accounted for 35% of the total NPI intercomponent variance. The seven NPI components

Table 1  
*Narcissistic Personality Inventory Items and Principal-Component Loadings*

Items	Loadings							FUPC
	1	2	3	4	5	6	7	
47. I would prefer to be a leader.	.83	.00	-.07	.04	-.12	.07	.22	.72
15. I see myself as a good leader.	.83	.16	.09	-.12	.06	.03	-.14	.64
13. I will be a success.	.67	.00	-.09	-.14	-.14	.17	.26	.49
46. People always seem to recognize my authority.	.66	.02	.06	-.06	.06	.00	.20	.69
2. I have a natural talent for influencing people.	.66	-.15	.02	-.02	.29	.03	-.24	.53
16. I am assertive.	.56	.18	-.02	.22	-.02	-.03	-.27	.49
17. I like to have authority over other people.	.56	.08	-.08	.18	.08	.05	.24	.72
50. I am a born leader.	.35	.20	.22	.00	.09	-.14	-.01	.53
30. I rarely depend on anyone else to get things done.	.02	.61	-.17	.04	.04	.10	-.11	.18
23. I like to take responsibility for making decisions.	.28	.59	-.23	.23	-.12	.00	.02	.37
53. I am more capable than other people.	-.19	.57	.16	.07	.11	.01	.20	.41
45. I can live my life in any way I want to.	-.13	.46	.29	-.02	.05	.05	-.03	.33
29. I always know what I am doing.	.15	.46	-.14	-.03	.30	.01	-.09	.35
48. I am going to be a great person.	.05	.43	.39	.04	-.03	-.05	.00	.51
54. I am an extraordinary person.	.06	.22	.69	-.07	-.06	.01	.06	.61
7. I know that I am good because everybody keeps telling me so.	-.18	.01	.69	.00	.21	.01	.15	.57
36. I like to be complimented.	.00	-.28	.67	.06	.00	.11	-.17	.38
14. I think I am a special person.	.08	.16	.64	-.02	-.09	.17	-.01	.58
51. I wish somebody would someday write my biography.	-.06	-.01	.57	.06	-.22	.09	.00	.30
28. I am apt to show off if I get the chance.	-.04	-.02	.04	.71	-.03	.06	.06	.44
3. Modesty doesn't become me.	-.01	.19	-.01	.69	-.16	-.06	.14	.41
52. I get upset when people don't notice how I look when I go out in public.	-.16	.04	.10	.51	.09	.25	.17	.45
12. I like to be the center of attention.	.32	-.14	.24	.49	-.02	-.10	.09	.67
5. I would do almost anything on a dare.	-.01	.26	-.16	.48	.10	.06	.00	.35
44. I really like to be the center of attention.	.34	-.09	.27	.46	.00	.00	-.12	.66
39. I like to start new fads and fashions.	-.06	-.19	.09	.35	.18	.12	.11	.36
22. I can read people like a book.	-.07	.14	-.11	-.11	.71	.13	.00	.33
49. I can make anybody believe anything I want them to.	-.10	.18	.00	.01	.69	-.02	-.03	.41
19. I find it easy to manipulate people.	.18	-.16	.00	-.18	.66	.04	.25	.51
10. I can usually talk my way out of anything.	.05	-.09	-.15	.23	.62	-.04	.11	.47
32. Everybody likes to hear my stories.	-.05	.16	.05	.34	.43	-.20	-.22	.39
26. I like to look at my body.	.14	.15	.06	-.05	.01	.87	-.17	.40
42. I like to look at myself in the mirror.	.02	-.10	.14	.07	.00	.79	-.15	.30
21. I like to display my body.	.06	.09	.10	.07	.06	.76	-.03	.46
35. I will never be satisfied until I get all that I deserve.	-.15	.08	-.09	.11	.21	.01	.70	.37
34. I expect a great deal from other people.	.01	-.08	.03	.08	-.13	-.28	.68	.20
25. I want to amount to something in the eyes of the world.	.17	-.03	.21	.08	.01	-.07	.53	.58
38. I have a strong will to power.	.36	-.07	-.13	-.03	.18	.03	.49	.51
20. I insist upon getting the respect that is due me.	-.24	.05	.12	.30	-.16	.17	.45	.10
8. If I ruled the world it would be a much better place.	.12	.24	.26	-.23	.09	-.11	.35	.45
Component variance	3.49	2.98	2.97	2.94	2.87	2.72	2.63	

Note.  $N = 1,018$ . The items are narcissistic responses to NPI forced-choice dyads. 1 = Authority, 2 = Self-Sufficiency, 3 = Superiority, 4 = Exhibitionism, 5 = Exploitativeness, 6 = Vanity, and 7 = Entitlement. FUPC = first unrotated principal component.

Table 2

*Intercorrelations, Means, Standard Deviations, Reliability Estimates, Gender, and Age Correlations for Full-Scale Narcissistic Personality Inventory (NPI) and Seven NPI Component Scales*

Com- ponents	1	2	3	4	5	6	7	Full scale	Gender	Age	No. of items	<i>M</i>	<i>SD</i>	Guttman lambda 3
1	—										8	4.16	2.17	.73
2	.42	—									7	2.21	1.74	.63
3	.39	.37	—								5	2.54	1.36	.54
4	.34	.34	.25	—							6	1.67	1.40	.50
5	.34	.32	.20	.29	—						5	1.47	1.69	.52
6	.39	.19	.28	.24	.25	—					6	2.09	1.50	.50
7	.21	.26	.31	.14	.12	.11	—				3	1.37	1.08	.64
Full scale	.58	.51	.48	.43	.41	.40	.30	—			40	15.55	6.66	.83
Gender	.05	-.02	.05	.11	.05	.11	.04	.08	—					
Age	.00	-.04	.00	.04	-.09	.05	.00	-.01	—	—				

*Note.*  $N = 1,018$ . The correlations presented between the full-scale NPI and its seven component scales were item-corrected to eliminate item overlap. 1 = Authority, 2 = Exhibitionism, 3 = Superiority, 4 = Entitlement, 5 = Exploitativeness, 6 = Self-Sufficiency, and 7 = Vanity.

showed loadings of .76, .36, .75, .62, .68, .33, and .50, respectively, on the first unrotated component.

Because the 40-item NPI showed a total scale score correlation of .98 with our original 54-item scale, and because the component structure of the scale showed evidence of a general component as well as evidence of seven first-order components that were conceptually meaningful, we decided to retain the 40-item scale as our best measure of narcissism to date.<sup>1</sup>

Table 2 shows normative statistics of the 40-item NPI for our sample of 1,018 college students. As can be seen from this table, the Guttman lambda 3 (alpha) estimate of internal consistency for the 40-item NPI is acceptable, and its correlations with age and gender are negligible. In Table 2 we also present normative statistics for the seven NPI component scales that were derived by summing the marker variables for each component in our seven-component solution. Additionally, because we wanted the seven-component scales to encompass the total 40-item pool, those few items that demonstrated a lack of cluster structure by significantly loading on more than one component were assigned to the component scale that reflected their highest loading. As shown in the table, the lambda 3 internal consistencies of several of the component scales are somewhat low but are within an acceptable range of .50 and above. We suggest that these reliability estimates are a function of the relatively small number of items in each of the component scales and that this attenuation can best be corrected in the future by developing more items for each of the component scales and by using the scales in samples with greater variability than the college cohort we analyzed. Correlations between each of the NPI component scales and age and gender were negligible.

Table 2 also shows the intercorrelations among the seven NPI unit-weighted component scales, which ranged from .11 (Self-Sufficiency and Vanity) to .42 (Authority and Exhibitionism), with the average intercomponent correlation being .27. Additionally, each component scale showed a correlation of .25 and above with at least two other component scales. A principal-components analysis of the component scale intercorrelation matrix produced a first unrotated component that accounted for 38% of the intercomponent scale variance. The component scale loadings on the first unrotated principal component were

.74, .56, .66, .60, .69, .58, and .45, respectively, indicating clearly that a general factor is reflected in the seven NPI component scale scores.

## Study 2

The aim of this study was to test the construct validity of the NPI by incorporating the measure in an assessment situation that offered a comprehensive view of personality from observational and self-report perspectives. If the NPI is a valid measure of narcissism, then it should produce a nomological network of relationships with external criteria that is consistent with the current clinical description of the narcissistic personality. To further this aim, the Institute of Personality Assessment and Research (IPAR) at the University of California at Berkeley included the NPI in its 1982 and 1984 assessments of college sophomores. In this study, we present the results obtained when the NPI was correlated with the observational and self-report data that were generated in those assessments.

## Method

### Subjects

Subjects were 57 college sophomores at the University of California at Berkeley who were paid a nominal fee of \$25 to participate in either the 1982 or 1984 IPAR assessment programs. The subjects were 28 men and 29 women with an average age of 21 years. These subjects represented a subset of the aggregated sample used in our factor analytic study of the NPI.

### Materials

*Observational measures.* Of the various measures used, our analyses focused on the following:

1. *Trait Rankings.* Prior to each assessment staff members were given a list of definitions for 22 trait terms, (e.g., narcissism, dominance, extraversion, evaluativeness, sensation seeking, etc). The trait term *narcis-*

<sup>1</sup> The 14 items dropped from the 54-item NPI were Items 1, 4, 6, 9, 11, 18, 24, 27, 31, 33, 37, 40, 41, and 43.

*sis*m was defined as "self-admiration that is characterized by tendencies toward grandiose ideas, fantasied talents, exhibitionism, and defensiveness in response to criticism; interpersonal relationships are characterized by feelings of entitlement, exploitativeness, and a lack of empathy." Following each assessment session, 12 staff members were asked to rank order all of the subjects on each of the 22 traits. All of the trait rankings were then aggregated across all of the staff members so that each trait ranking represented a composite judgment of all staff members. The average interjudge correlation between all possible pairs of judges across the 22 traits was .29, and the alpha composite reliability for the panel of judges was .83.

2. The California Q-Sort (CQ; Block, 1961). Following each assessment session, 5 staff members completed the 100-item CQ for each subject. Q-sorts were then aggregated across the 5 staff members so that each Q-sort item represented a composite judgment of 5 staff members. The 100 CQ items had an average interjudge correlation between all possible pairs of raters of .36, and the alpha composite reliability for the panel of judges was .74.

3. The Adjective Check List (ACL; Gough & Heilbrun, 1965). Following each assessment session, 10 staff members recorded their impressions of each subject by completing the ACL. ACL items were then aggregated for the 10 staff members so that each adjective item represented a composite judgment of 10 staff members. The alpha composite reliability for the panel of judges across the 300 adjectives was .80, and the average interjudge correlation between all possible pairs of judges was .29.

4. Leaderless Group Discussion. Following a group meeting in which subjects in the group had to generate and pursue their own topics of discussion, 10 staff members rank ordered each of the group members on seven behavioral dimensions: extent of participation, quality of participation, criticality, exhibitionism, assertiveness, cooperation, and leadership. Behavioral rankings were then aggregated for the 10 staff members so that each behavioral item represented a composite judgment of 10 staff members. The average interjudge correlation for all possible pairs of raters across the seven behavioral rankings was .47, and the alpha composite reliability for the panel of raters was .90.

*Self-report measures.* Of the many self-report measures used in the assessment, our analyses focused on subjects' responses to our 40-item NPI, the California Psychological Inventory (CPI; Gough, 1956), and the ACL.

### Procedure

Groups of 10 subjects were invited to IPAR to spend two consecutive 8-hr days performing a variety of tasks while interacting with each other and with 12 to 15 IPAR staff members. Subjects' activities ranged from an informal breakfast and lunch with staff members to more structured and task-oriented activities such as a leaderless group discussion, a game of charades, several structured and semistructured interviews, and group testing sessions. In addition to these activities, subjects were required to complete a large battery of personality inventories and social attitude questionnaires before each session. Following each assessment session, IPAR staff members reported their impressions and observations of the subjects using a variety of observational methods, including trait rankings, CQs, adjective check lists, and behavioral rankings.

### Results

In the observational domain, 7 of the 22 IPAR trait rankings showed substantial correlations ( $p < .01$ ) with the NPI: Narcissism ( $r = .47$ ), Sensation Seeking ( $r = .42$ ), Evaluativeness ( $r = .37$ ), Dominance ( $r = .36$ ), Extraversion ( $r = .35$ ), Energy Level ( $r = .30$ ), and Formality ( $r = -.35$ ). Of the 6 leaderless group discussion behavioral rankings, the NPI showed positive rela-

tionships with Exhibitionism ( $r = .31$ ,  $p < .01$ ), Criticality ( $r = .31$ ,  $p < .01$ ), Assertiveness ( $r = .26$ ,  $p < .05$ ), Leadership ( $r = .26$ ,  $p < .05$ ), and Extent of Participation ( $r = .23$ ,  $p < .05$ ).

Of the 100 CQ items, 15 items showed a positive correlation with our narcissism measure at a significance level of  $p < .01$ . The highest positive correlations were with the following CQ items: Characteristically Pushes and Tries to Stretch Limits ( $r = .50$ ), Behaves in an Assertive Fashion ( $r = .46$ ), Tends to Perceive Many Contexts in Sexual Terms ( $r = .42$ ), Expresses Hostile Feelings Directly ( $r = .41$ ), and Feels Satisfied With Self ( $r = .38$ ). Thirteen CQ items showed a negative correlation with the NPI at a significance level of  $p < .01$ . The highest negative correlations were with the following CQ items: Arouses Nurturant Feelings in Others ( $r = -.43$ ), Is Concerned With Own Adequacy as a Person ( $r = -.42$ ), Is Genuinely Submissive ( $r = -.41$ ), Seeks Reassurance From Others ( $r = -.40$ ), and Tends to Avoid or Delay Action ( $r = -.40$ ).

Of the 300 ACL items, 28 items showed a positive correlation with the NPI at a significance level of  $p < .01$ . The highest positive correlations were with Self-Confident ( $r = .41$ ), Rude ( $r = .40$ ), Aggressive ( $r = .38$ ), Autocratic ( $r = .38$ ), Self-Centered ( $r = .37$ ), Assertive ( $r = .37$ ), and Ambitious ( $r = .36$ ). Forty ACL items showed negative correlations with the NPI at a significance level of  $p < .01$ , with the highest being Submissive ( $r = -.57$ ), Patient ( $r = -.55$ ), Modest ( $r = -.54$ ), Timid ( $r = -.51$ ), Gentle ( $r = -.49$ ), Peaceable ( $r = -.49$ ), and Sensitive ( $r = -.47$ ).

In the self-report domain, the NPI showed strong-to-moderate positive correlations ( $p < .01$ ) with the CPI scores for Dominance ( $r = .71$ ), Sociability ( $r = .66$ ), Social Presence ( $r = .62$ ), and Capacity for Status ( $r = .37$ ); it showed negative correlations ( $p < .01$ ) with the CPI scales for Femininity ( $r = -.39$ ), Self-Control ( $r = -.36$ ), and Tolerance ( $r = -.30$ ). With respect to the ACL scale scores, the NPI showed positive correlations ( $p < .01$ ) with Free Child, defined by attitudes of playfulness, impulsivity, and self-centeredness ( $r = .67$ ); Self-Confidence ( $r = .65$ ); Creative Personality ( $r = .63$ );  $n$  Dominance ( $r = .63$ );  $n$  Exhibition ( $r = .62$ );  $n$  Autonomy ( $r = .57$ ); Ideal Self, defined as the harmony between what one is and what one wants to be ( $r = .52$ );  $n$  Heterosexuality ( $r = .52$ );  $n$  Aggression ( $r = .50$ ); Masculine Attributes ( $r = .48$ );  $n$  Change ( $r = .46$ ); and  $n$  Achievement ( $r = .44$ ). The NPI correlated negatively ( $p < .01$ ) with  $n$  Deference ( $r = -.67$ );  $n$  Abasement ( $r = -.63$ ); Self-Control ( $r = -.63$ );  $n$  Succorance ( $r = -.45$ ); and Adapted Child, defined by attitudes of deference and conformity ( $r = -.41$ ). It is important to note that these self-report correlates were obtained in the absence of any direct item overlap among the NPI and the ACL and the CPI and despite a substantial difference in the item formats of the three inventories.

In order to investigate the validity of the seven NPI component scales, we correlated them with the IPAR criterion variables. In the observer domain, five of the seven component scales showed significant positive correlations with the Trait Ranking for Narcissism. These correlations were Authority ( $r = .44$ ,  $p < .001$ ), Exhibitionism ( $r = .42$ ,  $p < .001$ ), Self-Sufficiency ( $r = .34$ ,  $p < .01$ ), Exploitativeness ( $r = .28$ ,  $p < .05$ ), and Superiority ( $r = .24$ ,  $p < .05$ ). The NPI components Entitlement and Vanity also showed small positive correlations with the Trait Ranking for Narcissism in this sample ( $rs = .16$

and .11, respectively), but the correlations were not significant. Additionally, the NPI Authority component showed substantial correlations ( $p < .01$ ) with 22% of the observer criteria. The highest positive observational correlates of the Authority component were the CQ items Behaves in an Assertive Fashion ( $r = .50$ ) and Characteristically Pushes and Tries to Stretch Limits ( $r = .45$ ), and the ACL items Self-Confident ( $r = .47$ ), Assertive ( $r = .45$ ), and Aggressive ( $r = .42$ ). The Authority component also showed significant positive correlations ( $p < .01$ ) with the trait ranking for Dominance ( $r = .38$ ) and with the leaderless group discussion rankings for Assertiveness ( $r = .36$ ) and Leadership ( $r = .33$ ). In the self-report domain, Authority showed substantial correlations ( $p < .01$ ) with 55% of the criteria. Its highest positive correlates were the CPI Dominance ( $r = .79$ ), Self-Acceptance ( $r = .57$ ), and Sociability ( $r = .57$ ) scales and with the ACL  $n$  Dominance ( $r = .68$ ) and Self-Confidence ( $r = .68$ ) scales.

The NPI Exhibitionism component showed substantial correlations ( $p < .01$ ) with 23% of the observer criteria; the highest positive observer correlates were with the CQ items Is Self-Indulgent ( $r = .56$ ), Tends to Perceive Many Contexts in Sexual Terms ( $r = .46$ ), and Is Self-Dramatizing ( $r = .44$ ), and the ACL items Impatient ( $r = .50$ ) and Outgoing ( $r = .43$ ). Exhibitionism also showed significant correlations ( $p < .01$ ) with the Leaderless Group Discussion Ranking for Exhibitionism ( $r = .36$ ), the CQ item Unable to Delay Gratification ( $r = .40$ ), the ACL item Show-Off ( $r = .31$ ), and the Trait Rankings for Extraversion ( $r = .36$ ) and Sensation Seeking ( $r = .40$ ). Exhibitionism also showed substantial correlations ( $p < .01$ ) with 40% of the self-report criteria. The highest positive correlates were the ACL  $n$  Exhibition ( $r = .62$ ),  $n$  Aggression ( $r = .57$ ), and Free Child ( $r = .54$ ) scales, and CPI Sociability ( $r = .56$ ) and Social Presence ( $r = .51$ ). Exhibitionism also correlated negatively with the ACL Self-Control scale ( $r = -.66$ ) and CPI Self-Control scale ( $r = -.42$ ).

The NPI component of Exploitativeness correlated ( $p < .01$ ) with 11% of the observational criteria. The highest positive correlations were with the CQ items Tends to Be Rebellious and Non-Conforming ( $r = .43$ ) and Characteristically Pushes and Tries to Stretch Limits ( $r = .39$ ), and the ACL items Rude ( $r = .44$ ), Tactless ( $r = .44$ ), and Rebellious ( $r = .40$ ). Exploitativeness also showed significant positive correlations with the CQ item Has Basic Hostility Toward Others ( $r = .30$ ,  $p < .01$ ), the ACL items Aggressive ( $r = .29$ ,  $p < .05$ ) and Unscrupulous ( $r = .27$ ,  $p < .05$ ), and a significant negative correlation with the Trait Ranking for Responsibility ( $r = -.34$ ,  $p < .01$ ). Exploitativeness showed substantial correlations ( $p < .01$ ) with 22% of the self-report criteria; the highest positive correlations were with CPI Sociability ( $r = .40$ ) and Dominance ( $r = .33$ ), and the ACL  $n$  Exhibition ( $r = .37$ ), Free Child ( $r = .36$ ), and  $n$  Autonomy ( $r = .33$ ). Exploitativeness also showed significant negative correlations with CPI Tolerance ( $r = -.36$ ,  $p < .01$ ) and Responsibility ( $r = -.31$ ,  $p < .01$ ).

NPI Entitlement produced significant correlations ( $p < .01$ ) with 9% of the observational criteria; the highest positive correlates were with the CQ items Expresses Hostility Directly ( $r = .36$ ) and Is Power Oriented ( $r = .32$ ), and the ACL items Ambitious ( $r = .46$ ), Independent ( $r = .44$ ), and Tough ( $r = .38$ ). Entitlement produced substantial correlations ( $p < .01$ ) with 20%

of the self-report criteria. The highest positive correlations were with CPI Dominance ( $r = .33$ ), and ACL Free Child ( $r = .37$ ) and  $n$  Change ( $r = .37$ ). Entitlement showed significant negative correlations with CPI Self-Control ( $r = -.42$ ) and Tolerance ( $r = -.38$ ).

The NPI Self-Sufficiency scale produced significant correlations with 15% of the observer criteria and with 42% of the self-report criteria. The highest observer correlates were the CQ items Behaves in an Assertive Fashion ( $r = .40$ ) and Feels Satisfied With Self ( $r = .39$ ), the Trait Ranking for Masculinity ( $r = .35$ ), and the ACL items Autocratic ( $r = .42$ ) and Independent ( $r = .33$ ). Self-Sufficiency also showed positive correlations with the ACL item Individualistic ( $r = .25$ ,  $p < .05$ ), the Trait Ranking for Independence ( $r = .26$ ,  $p < .01$ ), and the CQ item Values Own Independence and Autonomy ( $r = .28$ ,  $p < .05$ ); there was a negative correlation with the ACL item Dependent ( $r = -.48$ ,  $p < .01$ ). The Self-Sufficiency scale also produced positive self-report correlations ( $p < .01$ ) with the ACL scales for  $n$  Dominance ( $r = .52$ ),  $n$  Achievement ( $r = .46$ ), Self-Confident ( $r = .46$ ), and the CPI scale for Dominance ( $r = .46$ ).

In contrast to the substantial number of correlates produced by the Authority, Exhibitionism, Exploitativeness, Entitlement, and Self-Sufficiency components, Vanity and Superiority showed substantial correlations ( $p < .01$ ) with only 2% and 1%, respectively, of the observational criteria, and with 2% and 26%, respectively, of the self-report criteria. Although these components produced only a few correlates, Vanity did show significant correlations ( $p < .01$ ) with the observational CQ items Regards Self as Physically Attractive ( $r = .39$ ) and Is Physically Attractive ( $r = .37$ ), and with the observational ACL items Attractive ( $r = .41$ ), Good Looking ( $r = .37$ ), and Handsome ( $r = .35$ ). On the other hand, Superiority produced significant correlations ( $p < .01$ ) with the self-report CPI scale Capacity for Status ( $r = .38$ ) and the ACL scales Ideal Self ( $r = .52$ ), Free Child ( $r = .36$ ), and Self-Confidence ( $r = .35$ ).

In order to provide a fuller view of the degree of overlap that was typically found in the correlational patterns among the seven NPI component scales and the IPAR criterion variables, we present the 25 highest correlations found among the NPI components and the observer ACL items in Table 3.

The table shows a broad range of correlations across the seven NPI components, which suggests that there is some evidence for differential correlation among the components. For example, using Hotelling's  $T$  test for the significant difference among dependent correlations (McNemar, 1969), the correlations among NPI Authority and NPI Superiority with the ACL item Aggressive ( $r_s = .43$  and  $.01$ , respectively) are significantly different ( $t_{dr} = 3.15$ ,  $p < .01$ ), as are the correlations among NPI Authority and NPI Exhibitionism with the ACL item Autocratic ( $r_s = .42$  and  $.19$ , respectively;  $t_{dr} = 1.72$ ,  $p < .05$ ). As can be seen in Table 3, there is also a substantial degree of overlap among the correlational patterns of several of the components. These correlational patterns are consistent with the patterns one would expect when diverse yet interdependent constructs are tied together by a higher order general factor.

### Study 3

In this study we examined the relationship of the NPI to the Leary circumplex model of interpersonal behavior (Leary,



Table 3  
The 25 Highest Positive Correlates Among NPI Component Scales and IPAR Observer ACL Items

ACL observer items	NPI component scale						
	1	6	4	5	7	2	3
Self-Confident	.46	.16	.20	.08	.28	.37	.17
Assertive	.44	.00	.33	.19	.22	.32	.02
Aggressive	.43	-.07	.39	.24	.24	.28	.01
Autocratic	.42	-.10	.19	.23	.30	.35	.14
Strong	.41	.08	.00	.10	.23	.26	.07
Headstrong	.40	-.03	.32	.24	.25	.34	.05
Attractive	.21	.41	.00	-.02	-.10	-.04	.04
Good Looking	.11	.37	-.06	.06	-.12	.00	-.09
Handsome	.02	.35	-.06	.04	.14	.02	-.06
Impatient	.33	.01	.50	.33	.12	.20	-.01
Outgoing	.33	-.05	.40	.10	.09	.25	.07
Self-Centered	.24	.06	.40	.32	.18	.29	.09
Self-Seeking	.18	.01	.38	.08	.17	.22	.09
Pleasure-Seeking	.27	.16	.37	.14	.10	.28	.11
Rude	.26	.06	.38	.44	.25	.32	.14
Tactless	.25	-.02	.33	.42	.20	.28	-.03
Disorderly	.17	-.05	.21	.38	.15	.12	-.03
Unkind	.22	.02	.30	.37	.23	.28	.12
Unfriendly	.26	.16	.23	.35	.31	.14	.14
Ambitious	.31	.13	.19	.13	.46	.24	.07
Independent	.30	.06	.16	.16	.44	.31	.13
Rebellious	.24	.11	.14	.18	.38	.13	.19
Determined	.30	.20	.02	.10	.37	.22	.15
Enterprising	.26	.06	.06	.00	.36	.18	.06
Tough	.29	-.03	.12	.17	.36	.28	-.13

Note.  $N = 57$ . NPI = Narcissistic Personality Inventory, IPAR = Institute of Personality Assessment and Research, and ACL = Adjective Check List. 1 = Authority, 6 = Vanity, 4 = Exhibitionism, 5 = Exploitativeness, 7 = Entitlement, 2 = Self-Sufficiency, and 3 = Superiority.

1956). We chose to examine this relationship because the Leary circumplex model represents a general model of personality structure and includes a dimension for narcissism that is embedded in a coherent context of other important psychological dimensions. Additionally, because several psychoanalytic theorists (Kernberg, 1975; Murray, 1964; Reich, 1960) have suggested that narcissistic phenomena are often associated with aggrandized and aggressivized distortions in an individual's ideal self-representations, we wanted to use the interpersonal circumplex to explore the relationship of narcissism to the subjects' ideal self-descriptions and to the degree of congruency between their self and ideal self-descriptions.

### Method

#### Subjects

Subjects were 127 undergraduate students at the University of California at Berkeley who volunteered to participate in order to receive partial credit for a departmental experiment requirement. The subjects included 65 men and 62 women ranging in age from 17 to 40 years (average age = 19 years;  $SD = 2.25$  years). These subjects represented a subset of the aggregated sample we used in our factor analytic study of the NPI.

#### Materials

Instruments included the 40-item NPI and the Interpersonal Check List (ICL; Leary, 1956). The ICL is a checklist that consists of 128 adjectives and adjective phrases that can be used to describe oneself and others. Depending on the level of item and subscale aggregation, the ICL can produce scores that reflect 16, 8, or 2 categories of interpersonal behavior. Because previous research (Laforge, 1977; Paddock & Nowicki, 1986) suggests that the ICL octant and axis scores represent the most reliable scores in the ICL system, our analyses included the octant scores for Managerial and Autocratic, Competitive and Narcissistic, Aggressive and Sadistic, Rebellious and Distrusting, Self-Effacing and Masochistic, Docile and Dependent, Cooperative and Overconventional, Responsible and Hypernormal, and axis scores for Dominance and Love.

#### Procedure

All subjects were administered the 40-item NPI and two versions of the ICL that varied in their instructional sets. In one version, subjects were asked to use the ICL to describe themselves as they really are (their real self). In the other version, subjects were asked to use the ICL to describe themselves as they would like to be (their ideal self). In order to assess the subjects' degree of self-ideal self congruency, we computed intraindividual correlations among the 16 ICL category variables for their self and ideal self-descriptions.

#### Results

In the realm of self-description, subjects scoring high on the NPI tended to describe themselves as being Competitive and Narcissistic ( $r = .47, p < .001$ ), Managerial and Autocratic ( $r = .45, p < .001$ ), and Aggressive and Sadistic ( $r = .30, p < .001$ ). A significant negative correlation was found between the NPI and Self-Effacing and Masochistic scale scores ( $r = -.24, p < .01$ ). At the level of axis description, the high NPI scorers tended to describe themselves as being higher in Dominance ( $r = .47, p < .001$ ).

In the area of ideal self-description, persons scoring high on the NPI tended to want to be more Aggressive and Sadistic ( $r = .26, p < .01$ ), more Managerial and Autocratic ( $r = .22, p < .01$ ), more Rebellious and Distrustful ( $r = .20, p < .01$ ), and more Narcissistic and Competitive ( $r = .17, p < .01$ ). At the axis level of description, high NPI scorers described their ideal self as being more Dominant ( $r = .19, p < .05$ ). Additionally, high NPI scorers also showed a tendency toward real self-ideal self congruency ( $r = .28, p < .001$ ).

A correlational analysis of the seven NPI components with the ICL self-descriptions produced several meaningful relationships. All of the NPI components exhibited positive correlations with the ICL dimension of Narcissistic and Competitive. These correlations were as follows: Superiority ( $r = .33, p < .001$ ), Authority ( $r = .31, p < .001$ ), Exhibitionism ( $r = .30, p < .001$ ), Self-Sufficiency ( $r = .29, p < .001$ ), Vanity ( $r = .25, p < .01$ ), Exploitativeness ( $r = .24, p < .01$ ), and Entitlement ( $r = .17, p < .05$ ). Additionally, NPI Authority showed its highest correlation with Managerial and Autocratic ( $r = .49, p < .001$ ), NPI Entitlement showed its highest correlation with Rebellious and Distrustful ( $r = .27, p < .001$ ), NPI Exploitativeness exhibited positive correlations with both Sadistic and Aggressive ( $r = .25, p < .01$ ), and Cooperative and Over-Conven-

tional ( $r = .29, p < .001$ ), and NPI Self-Sufficiency showed a negative correlation with Docile and Dependent ( $r = -.39, p < .001$ ). Finally, only NPI Authority and Superiority demonstrated significant relationships with the subjects' self-ideal self congruency ( $r = .30, p < .01$ , and  $r = .22, p < .05$ , respectively). An analysis for gender differences showed that there were no significant differences among any of the correlations reported.

### Discussion

We believe that our internal analysis of the NPI has resulted in a relatively parsimonious measure of narcissism that reflects some of the more important psychological themes that have been historically attributed to the narcissism construct. Our principal-components analysis of the scale clearly met five of the six criteria needed to demonstrate that a general factor or superordinate construct meaningfully summarizes the response characteristics of the scale. The sixth criteria—that all of the items show nontrivial positive loadings on the first unrotated component—was only partially satisfied in that 2 of the 40 NPI items showed positive loadings that were slightly under the minimum acceptable value. Although the evidence suggests that a general component is associated with the NPI, it should be pointed out that from a methodological viewpoint, the prepotency of the general component found was a weak one. Although it is reasonable to assume that the strength of the general component has been somewhat attenuated by the specific nature of the sample tested, in that we used a college sample rather than a sample that included clinical narcissists, it is worth bearing in mind that both theoretically and clinically, narcissism represents a syndrome of relatively diverse behaviors that would not predict for a particularly strong or overriding general factor. In addition to presenting evidence for a general construct, our principal-components analysis produced seven relatively interdependent components that appear to be methodologically substantial and conceptually meaningful. Each component had at least three marker items that clearly defined that component, and each component had a sufficient amount of NPI variance associated with it to suggest that it summarized a legitimate subdimension of the response characteristics of the test. Additionally, the items loading on each component appear to hang together conceptually and speak to a theme of narcissism that has been developed in the literature, such as exhibitionism or exploitativeness.

Although the evidence from Study 1 suggests that the NPI measures a general construct and seven components of that construct, it remains an empirical question as to whether that general construct and its components do indeed reflect narcissistic behavior. We believe that the correlational evidence presented in Studies 2 and 3 suggests that the construct being measured by the NPI is narcissism. The observational and self-report correlates of the full-scale NPI found in the IPAR sample portray the high NPI scorer as being relatively dominant, extraverted, exhibitionistic, aggressive, impulsive, self-centered, subjectively self-satisfied, self-indulgent, and nonconforming. This portrait of the narcissist is highly congruent with the one we would expect to find in nonclinical manifestations of narcissism and is entirely in accord with clinical observation. Additionally, the full-scale NPI showed a relatively strong correlation with the

observer Trait Ranking for Narcissism. It is also encouraging to note that many of the self-report and observational correlates found in this sample are similar to those reported by Emmons (1984).

In addition to the validity evidence accrued for the 40-item NPI, the IPAR assessment data provided substantial validity evidence for the NPI Authority and Exhibitionism components, as well as some support for the validity of the Exploitativeness, Entitlement, Self-Sufficiency, Superiority, and Vanity components. Dominance, assertiveness, leadership, criticality, and self-confidence appear to summarize the central characteristics that are associated with NPI Authority, whereas exhibitionism, sensation seeking, extraversion, and a lack of impulse control tend to characterize the NPI Exhibitionism component. NPI Exploitativeness appears to be associated with such characteristics as rebelliousness, nonconformity, hostility, and a lack of consideration and tolerance for others, whereas ambitiousness, need for power, dominance, hostility, toughness, and a lack of self-control and tolerance for others appear to be associated with NPI Entitlement. Additionally, NPI Self-Sufficiency appears to be related to assertiveness, independence, self-confidence, and need for achievement. Although NPI Vanity and Superiority produced few correlates, Vanity appears to be defined by both regarding oneself as physically attractive and being actually judged to be physically attractive, whereas Superiority is associated with such characteristics as capacity for status, social presence, self-confidence, and narcissistic ego inflation as measured by the ACL Ideal Self scale. It is also encouraging to note that five of the seven NPI components—Authority, Exhibitionism, Self-Sufficiency, Superiority, and Exploitativeness—showed significant positive correlations with the Trait Ranking for Narcissism. Furthermore, the correlational pattern of the seven NPI components with the IPAR criterion variables suggests that there is both overlapping correlation among the components and differential correlation among the components. This is the kind of correlational pattern one would expect to find among relatively independent behavioral dimensions that are associated via a personality syndrome.

Although we believe that the seven NPI component scales fared reasonably well with respect to the IPAR observer and self-report criteria, it is important to realize that the evidence available for demonstrating the validity of the component scales was limited by the relative saliencies of the component-related behaviors in the IPAR observational setting and by the specific nature of the criteria in both the observational and self-report domains. For example, it is reasonable to assume that a person's exhibitionistic and authoritarian behaviors would be far more publically recognizable than would the more private behaviors that typically define a person's vanity. Accordingly, given the greater degree of saliency of exhibitionistic and authoritarian behaviors in the IPAR interpersonal setting, it should not be surprising that NPI Exhibitionism and Authority correlated with 23% and 22%, respectively, of the IPAR observer variables, whereas Vanity only correlated with 2% of the observer variables. On the other hand, the specific nature of the IPAR criteria studied would also help to limit the validity evidence available for some of the NPI components, in that many of the IPAR observational and self-report items were specifically relevant to behavioral dimensions pertaining to Authority, Exhibitionism,

and Self-Sufficiency, whereas few of the items were specifically relevant to behavioral dimensions pertaining to Vanity, Superiority, or Entitlement. For example, one could directly test the NPI Exhibitionism component against the Leaderless Group Discussion ranking for Exhibitionism and the ACL scale for *n* Exhibitionism, whereas there were no items or scales that one could directly test the NPI Entitlement component against and only a few items or scales that were specifically relevant to NPI Superiority and Vanity. Because the Superiority, Vanity, and Entitlement components did correlate with most of the items and scales that were at least peripherally relevant to the constructs they purport to measure, we are inclined to believe that these components would fare much better in a study that was specifically designed to tap criterion behaviors that are more directly relevant to these particular dimensions of narcissism.

In our third study we attempted to map the NPI onto the interpersonal circumplex, which claims to be a relatively comprehensive representation of personality structure. Again, we found support for the validity of the full-scale 40-item NPI in that it showed a substantial correlation with the ICL dimension of Narcissistic and Competitive, and clinically predictable correlations with the ICL octant dimensions of Managerial and Autocratic, and Sadistic and Aggressive, and with the ICL axis dimension of Dominance. We also found some support for the validity of the seven NPI component scales in that all of the components showed positive and significant correlations with the ICL dimension of Narcissism and several of the components exhibited relationships with other ICL dimensions that were seemingly relevant to those components, such as the substantial positive correlation between NPI Authority and ICL Managerial and Autocratic, and the substantial negative correlation between NPI Self-Sufficiency and ICL Docile and Dependent.

Further support for the validity of the full-scale NPI was obtained when we tested the psychoanalytic theory that narcissism is associated with aggrandized and overly aggressive ideal self-representations. As the theory would predict, high NPI scorers tended to portray their ideal self-representations as Aggressive and Sadistic, Managerial and Autocratic, Rebellious and Distrustful, and Narcissistic and Competitive. In addition to offering support for the validity of the NPI, these latter results raise some interesting questions regarding the positive correlation found between narcissism and the subjects' degree of self-ideal self congruency. Given the grandiosity and ego inflation that is inherent in the definition of the narcissistic personality, and given the clinical assertions of Kernberg (1975), Murray (1964), and Reich (1960), who argued that a lack of separation among self and ideal self-representations is a significant dynamic of narcissism, it is not surprising to find that the narcissistic individual tends to view his or her self-representations as being congruent with a set of idealized or wishful representations of himself or herself. In fact, this observation replicates a similar observation made by Emmons (1984), who found narcissism to be negatively correlated with self and ideal-self discrepancy. However, given the longstanding prediction among empirical psychologists to equate self-ideal self congruency with positive self-regard and personal adjustment (Butler & Haigh, 1954; Hanlon, Hofstaetter, & O'Connor, 1954; Rogers & Dymond, 1954), and the longstanding prediction among psychoanalytic psychologists to view narcissism as being associated with a distur-

bance in the regulation of self-esteem (Jacobson, 1964; Kernberg, 1975; Reich, 1960) and as an indicator of personal maladjustment, how can we interpret the relationship between narcissism and self-ideal self congruency while satisfying these two apparently opposing viewpoints? Perhaps the answer to this conflict lies in our observation that the narcissist's self-ideal self congruency is achieved by identifying his or her self-representations with a set of idealized or wishful self-representations that are somewhat pathological in nature by virtue of their being aggrandized and overly aggressive. In other words, perhaps there are qualitative differences among an individual's ideal self-representations that, on the one hand, can lead to a self-ideal self congruency that is associated with genuine positive self-regard and personal adjustment, whereas on the other hand, it can lead to a self-ideal self congruency that is associated with narcissistic ego inflation and personality disturbance. In both cases described, self-ideal self congruency would be positively related to measures of self-reported self-esteem, but in the case in which self-ideal self congruency is achieved via identification with aggrandized and aggressivized ideal self-representations, the positive correlation between self-ideal self congruency and self-esteem may best be construed as representing a form of narcissistic ego inflation or defensive self-esteem (Harder, 1984; Silber & Tippett, 1965). Although the scenario we present is speculative at best, it is reasonable enough to suggest that future research in the areas of self-ideal self congruency and self-esteem could profit by taking into account both narcissism and the qualitative differences among the individual's ideal self-representations, particularly with respect to the aggressive and sexualized qualities of those differences.

Although we believe that we have made a reasonably good start in developing a measure of narcissism, we do not believe that the current item pool of the NPI accounts for all of the psychological themes and behavioral dimensions that are central to narcissism. Thus, our plans for the future development of the inventory include efforts to use the existing measure and its factor structure to develop a larger item pool that will sample more exhaustively the domain of narcissistic behaviors and sentiments. In this way we hope to be able to improve the existing NPI component scales as well as uncover other possible behavioral dimensions of narcissism that have not been empirically addressed. In addition to expanding the NPI, we are currently working on replicating the existing factor structure of the scale as well as continuing our efforts to search for empirical correlates that will provide validity evidence for the scale and the narcissism construct in general.

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