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Portrait of a narcissist: Manifestations of narcissism in physical appearance ☆

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ABSTRACT

Narcissism is characterized in part by an acute concern for one's appearance. Despite this fundamental aspect of narcissism, little is known about whether narcissism is manifested in features of physical appearance. Can you tell if someone is narcissistic just by looking at them? Our results indicate that snap judgments of narcissism based on full-body photographs are at least as accurate as snap judgments of any of the big five personality traits. Narcissists are more likely to wear expensive, flashy clothing, have an organized, neat appearance requiring a lot of preparation, and (in females) wear makeup and show cleavage. Furthermore, observers' judgments correlate with the presence of these cues, suggesting that they are drawing on the correct information when making their judgments. Finally, observers' judgments are associated with three of the four facets of narcissism and capture the unique constellation of personality traits typical of narcissists (i.e., high extraversion and low agreeableness). These findings suggest that physical appearance reflects narcissists' personality, preoccupation with good looks, and desire to be the center of attention, and serves as a vehicle with which to promote their status.

1. Introduction

It is no accident that the myth from which narcissism gets its name has its crucial turning point when the central character Narcissus catches sight of himself reflected in a pool of water. So mesmerized was Narcissus by his own unattainable reflection that he exclaimed "then let me look at you and feed my wretched frenzy on your image" (Ovid, 2004, book III, lines 621–622). This acute concern about one's appearance is a fundamental aspect of sub-clinical narcissism[1] (Raskin & Terry, 1988; Sedikides, Gregg, Cisek, & Hart, 2007) but has received no empirical attention. The psychological portrait of narcissists has been well described (Morf & Rhodewalt, 2001; Vazire & Funder, 2006) but there is strong reason to believe that narcissism also has a distinct physical signature. Indeed, there is good theoretical reason to suppose that of all traits, narcissism will be manifested in the domain of appearance. What are the visible cues that betray narcissism and do observers pick up on them?

Research on the accuracy of snap judgments, or "zero-acquaintance" judgments, has shown that some traits can be accurately perceived from minimal information. For example, targets' extraversion and conscientiousness can be perceived accu-

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[1] Throughout the paper, we use the term "narcissism" to refer to sub-clinical narcissism.

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rately after a very brief interaction (Kenny, 1994; Watson, 1989), intelligence can be perceived accurately after watching a videotape of the targets reading a weather report (Borkenau & Liebler, 1993), and openness to experience can be perceived accurately after seeing the targets' bedrooms or websites, or hearing their top-10 favorite songs (Gosling, Ko, Mannarelli, & Morris, 2002; Rentfrow & Gosling, 2006; Vazire & Gosling, 2004). However, we know very little about how narcissism—the trait most explicitly connected to appearance—is manifested and perceived in everyday life.

1.1. Manifestations of narcissism

Why should narcissism, in particular, be associated with a distinct physical appearance? Several aspects of narcissism are directly related to physical appearance, and in each case these aspects are referred to in the Narcissistic Personality Inventory (NPI, Raskin & Terry, 1988) , the most widely used instrument designed to assess sub-clinical narcissism. First, narcissists are characterized in part by their high levels of vanity and interest in their own appearance. Several items on the NPI directly address this tendency (e.g., "I like looking at myself in the mirror," "I like to start new fads and fashions"). Thus, narcissists may pay special attention to their appearance, leading to observable manifestations such as matching, fashionable clothes, and a tidy, organized appearance.

Another characteristic of narcissists that might affect their physical appearance is their desire to be the center of attention. NPI items such as "I really like to be the center of attention," "I like to display my body," and "I am apt to show off if I get the chance" tap into this facet of narcissism. Narcissists' exhibitionist tendencies might lead them to dress and adorn themselves in provocative, attention-grabbing ways. For example, narcissists may try to attract attention by wearing flashy or revealing clothing or by adorning themselves (e.g., with makeup).

Finally, narcissists' concern with status could also influence their physical appearance. Indeed, researchers have hypothesized that narcissists are especially likely to use clothes to enhance their status. For example, Sedikides et al. (2007) proposed that narcissists should be more likely than non-narcissists to buy brand-name, expensive, and stylish clothes, and to wear them as signals to their actual or desired status. Several items on the NPI tap into this facet of narcissism, such as "I like having authority over people," "I insist upon getting the respect that is due me," and "I want to amount to something in the eyes of the world."

Despite these theoretical links between narcissism and physical appearance, there is no research on the physical manifestations of narcissism or perceivers' use of appearance cues in forming impressions of narcissism. Does narcissism have reliable physical cues? If so, can you tell if someone is a narcissist just by looking at them? The present study examines these questions.

1.2. Present study

The aim of the present study was to examine whether, and how, narcissism is manifested in physical appearance. We tested three research questions related to this issue.

Question 1: How accurate are snap judgments of narcissism? As stated above, there are many reasons to think that narcissism would be easy to spot. Narcissists care about fashion, they like to be the center of attention, and they like to be respected and praised. It is therefore reasonable to suppose that people with such characteristics would alter their appearance to stand out. However, it would be surprising if a trait as psychologically complex as narcissism could be easily detected from just a glance. For example, previous research has shown that the level of accuracy achieved with snap judgments from physical appearance is usually low to moderate (Naumann, Vazire, Rentfrow, & Gosling, 2008). Thus, we did not expect high levels of accuracy; even moderate levels of accuracy would be impressive in this context.

What, then, is a practically significant degree of accuracy? To gauge this, we will compare the accuracy of snap judgments of narcissism based on physical appearance to the accuracy of judgments of narcissism made by well-acquainted informants (i.e., close friends). This provides an important benchmark because the degree of accuracy achieved by those who know a person well represents a reasonable maximum threshold for the level of accuracy possible among strangers. We also compare the degree of accuracy obtained for narcissism to the well-established accuracy correlation obtained for extraversion judged at zero-acquaintance (i.e., from silent video clips). We chose extraversion because it is the most observable of the traits that have been examined (John & Robins, 1993) and also the most accurately-judged (Borkenau & Liebler, 1993) , thus providing a high benchmark. We chose silent video clips as the comparison stimulus because several zero-acquaintance studies have examined accuracy using this stimulus and because silent video clips closely mirror our photographic stimulus in that they eliminate information from speech patterns and vocal content. In spite of this, silent video clips are still an especially strict benchmark to meet because these stimuli afford observers other sources of information (e.g., nonverbal behavior) that might improve accuracy, but that are absent from a static photograph.

Question 2: Which components of narcissism are manifested in physical appearance? Narcissism is typically conceived of as a constellation of narrower traits, which combine to produce a unique personality construct. It is possible that some facets of narcissism are better manifested in physical appearance than others. Thus, our second aim was to decompose narcissism into its component parts and examine which aspects can be detected from physical appearance alone.

What are the traits that make up narcissism? These have been conceptualized in several ways: within the framework of the Big Five personality traits (Paulhus & Williams, 2002) and as facets that can be captured by creating subscales of the NPI. The Big Five substrates of narcissism are high levels of agentic traits, especially extraversion, and low levels of communal

traits, especially agreeableness. Although not within the Big Five model of personality, explicit self-esteem is another trait that has consistently been included as an important component of narcissism (e.g., Raskin, Novacek, & Hogan, 1991; Rhodewalt & Morf, 1995).

The NPI-derived facets of narcissism have been conceptualized in two ways. Emmons, 1984; Emmons, 1987) approach derives four subscales with varying levels of adaptive value: leadership/authority (most adaptive), self-absorption/self-admiration, superiority/arrogance, and exploitativeness/entitlement (most maladaptive). Similarly, Raskin and Terry (1988) identified seven subscales (authority, self-sufficiency, superiority, exhibitionism, exploitativeness, vanity, and entitlement), and Raskin and Novacek (1989) showed that authority was the most adaptive facet and exploitativeness and entitlement were the most maladaptive. Because the four- and seven-facet models yield similar patterns of correlations with adjustment, we will focus only on the four-factor model because it is more parsimonious and because the reliabilities of its subscales are higher than those of the seven-factor model.

Thus, to address our second research question, we examined the extent to which observers' perceptions of narcissism correspond with targets' levels of extraversion, agreeableness, and self-esteem, as well as Emmons' four facets of the NPI. By determining which components of narcissistic personality are captured in observers' judgments, we can gain a better understanding of which aspects of narcissism are expressed in physical appearance. For example, if perceivers' impressions of narcissism are associated with targets' actual scores on the exploitativeness/entitlement subscale, it would suggest that this maladaptive aspect of narcissism may be more easily expressed in physical appearance than other aspects of narcissism.

Question 3: What are the valid cues to narcissism and what cues do observers use to judge narcissism? If observers are able to accurately judge narcissism based on physical appearance alone, this suggests that physical appearance contains reliable cues to narcissism. Thus, several questions follow: How is narcissism manifested in physical appearance? And, how do observers form accurate perceptions of narcissism based on physical appearance? Brunswik's (1956) lens model offers a framework in which to examine the links between narcissism and physical appearance and between physical appearance and perceptions of narcissism. According to this model, physical appearance serves as a lens through which observers form impressions of underlying constructs. For example, expensive clothes could serve as the lens through which observers perceive a target's narcissism.

In Brunswik's lens model, the term "cue validity" refers to the correspondence between the physical cue (e.g., expensive clothes) and the target's actual disposition (e.g., level of narcissism). The term "cue utilization" refers to the correspondence between the physical cue (e.g., expensive clothes) and the observer's perception (e.g., of narcissism). According to the lens model, accuracy results if observers utilize valid cues and ignore invalid cues to the targets' narcissism. Thus, our third aim was to examine what physical appearance cues are associated with actual narcissism (cue validity) and what cues are associated with observers' judgments (cue utilization). Because this is the first study to examine the physical appearance correlates of narcissism, we did not form specific hypotheses about which cues would be valid and utilized. Thus, our analyses are largely exploratory.

2. Method

We tested our three research questions in one comprehensive study involving three phases. In the first phase, we collected self and informant ratings of the targets' personalities, and photographed each target. In the second phase, a team of observers looked at the photographs and formed impressions of the targets' personalities, including narcissism. In the third phase, a team of trained coders recorded the physical characteristics of the targets in the photographs (i.e., cues).

2.1. Participants

Participants were 160 students enrolled in introductory psychology at the University of Texas at Austin in the fall of 2002. The sample was 54% female, and the average age of the participants was 18.7 years (SD = 2.0). According to self-reported ethnicity, 56% of participants were White, 23% Asian, 12% Hispanic, 3% Black, 3% indicated 'other', and 3% did not report their race. Participants completed the experiment in exchange for partial fulfillment of course requirements. Unless otherwise noted, there were no significant sex or ethnicity differences in any of the results presented.

2.2. Self ratings

Participants completed a battery of personality measures. Narcissism was measured with the 40-item Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). Specifically, participants read each of 40 pairs of statements (one indicating low narcissism and one indicating high narcissism) selecting the item that is closer to their own feelings about themselves. A participant's score on the NPI is the number of high-narcissism items they endorsed. The mean score on the NPI was 16.56 (SD = 7.56) and the alpha reliability was .87. We also computed facet scores for each of Emmons (1984), Emmons (1987) four facets of the NPI. The alpha reliabilities for the facets were .79 for leadership/authority, .73 for self-absorption/self-admiration, .58 for superiority/arrogance, and .60 for exploitativeness/entitlement.

Extraversion and agreeableness were measured with the Big Five Inventory (BFI; John, Naumann, & Soto, 2008) using a 1 ("Strongly disagree") to 7 ("Strongly agree") Likert-type scale. The mean scores were 4.51 (SD = 1.06) for extraversion and

5.19 (*SD* = .83) for agreeableness. The alpha reliability of self-ratings was .82 across the eight extraversion items and .86 across the nine agreeableness items. Self-esteem was measured using the single-item self Esteem inventory (SISE; Robins, Hendin, & Trzesniewski, 2001). Specifically, participants indicated the extent to which they agreed with the statement "I have high self-esteem" on a Likert-type scale from 1 ("Disagree strongly") to 7 ("Agree strongly"). The mean score on the SISE was 5.01 (*SD* = 1.51). We could not measure the reliability of this scale because it consists of only one item but previous research shows that the test-retest reliability of this measure is about .79 (Vazire & Mehl, 2007). Consistent with previous research (Paulhus & Williams, 2002; Raskin et al., 1991), participants' NPI scores were related to their self-reported level of extraversion ($r = .49$, $p < .01$), agreeableness ($r = -.37$, $p < .01$), and self-esteem ($r = .37$, $p < .01$).

2.3. Informant ratings

Each participant was asked to nominate three people who knew them well to provide ratings of their personality. Informants had known the targets an average of 9.6 years (*SD* = 7.3), and over 94% of informants had known the target for at least one year. Participants were told that the informants' ratings would be kept completely confidential, and that they themselves would never see their informants' ratings.

Informant-ratings were collected via the Internet following recommendations by Vazire (2006). Informants were contacted by e-mail and asked to complete an online questionnaire about how they see the target participant's personality. Informants received a link and unique identifying number in the email. Informants who did not complete the ratings were sent reminder emails after two weeks, four weeks, and six weeks. Two months after the end of the study, 79% of informants had completed the ratings, resulting in a total of 381 informant ratings, of which 219 (57%) were from friends, 63 (17%) from parents, 41 (11%) from romantic partners, 46 (12%) from siblings, and 12 (3%) from others (ex-boyfriends, ex-girlfriends, and extended family). Participants were compensated at the end of the three weeks, regardless of whether the informants had completed their ratings. Informants were not compensated for their cooperation.

Informants completed a battery of personality measures about the target, including a 4-item observer-rating measure of narcissism using a Likert-type scale from 1 ("Not true") to 7 ("Very true"). The items on this scale are: "Always wants to be the center of attention," "Tends to brag," "Thinks too much of him/herself," and "Overestimates his/her abilities." The informant ratings were aggregated to form a single, composite measure of well-acquainted others' perceptions. The reliability of the four-item narcissism measure for the composite of all three informants was ICC [1, *k*] = .82, and the average pairwise informant agreement correlation for the four-item measure of narcissism was .25. The mean aggregated informant rating on this scale was 2.54 (*SD* = 1.05). See Nathanson (2003) for details of convergent and discriminant validity for a measure very similar to this one.

2.4. Observer ratings

Observers' ratings of narcissism were based purely on photographs of the targets. Standardized photographs were taken of each participant standing against a white wall in a bare room, containing only a camera on a tripod. The location of the camera and the participant were fixed so that the bottom of the frame was just below the participant's feet, ensuring that the entire body would be captured in the photograph. Participants did not know before coming to the experiment that they would be photographed.

Seven undergraduate research assistants served as observers. The observers were each given a CD with all targets' photographs. They looked at the photographs of the target participants and made judgments about their personalities, including the same 4-item observer-rating measure of narcissism completed by the informants. The observers were instructed not to speak to each other about their ratings. The order in which the observers viewed the photographs was varied to reduce the impact of order effects. The observers were not given any instructions about how to form impressions of the targets. They were instructed to give their best guess as to the targets' personalities. The observers agreed substantially in their ratings of the targets' narcissism. The inter-observer agreement (ICC[2, *k*]) for the scale scores was .71, and the average pairwise agreement correlation was .28. The alpha reliability of the composite measure (averaging all four items across all seven observers) was .89. The mean aggregate observer rating on this scale was 3.28 (*SD* = .71).

2.5. Coding of cues

The data in this study were part of a larger dataset designed to examine the links between personality and appearance more generally (see Naumann et al., 2007, for a full description of the study). Thus, over 160 cues were coded from the photographs including items related to clothing, preparation, stance and emotional expression. All cues were coded by at least two research assistants, to allow us to measure the reliability of the codings. Many cues had low reliabilities, either due to low base rates (e.g., shirt tied around waist, hands on hips) or because the cues were hard to see in the photographs (e.g., hair accessories, wrinkles). Thus, we eliminated more than half of the initially coded cues due to low reliability.

We selected the final set of cues using the following procedure: First, all cues with a reliability (Cronbach's α) of less than .40 were removed from the list. Second, any cue that did not correlate with either the targets' NPI scores or the observers' ratings of narcissism was removed (i.e., cues were kept only if they were either valid or utilized). Third, any redundant cues with similar patterns of utilization and validity correlations were removed (e.g., "wearing eye shadow," "wearing mascara,"

"wearing lipstick," "wearing blush" and "wearing makeup" all had the same pattern of cue utilization and cue validity, so the first four were removed and "wearing makeup" was kept). This procedure resulted in a final list of 16 cues with an average alpha reliability of .69 (range: .41–1.00).

3. Results

Question 1: How accurate are snap judgments of narcissism? To examine the accuracy of the observers' ratings of narcissism, we correlated the aggregated observers' ratings with the targets' scores on the NPI. This correlation ($r = .25$, $p < .01$) was significant and moderate in size (Hemphill, 2003), demonstrating that observers' ratings had considerable accuracy. To gauge the magnitude of this accuracy correlation, we compared it to the degree of accuracy that knowledgable informants could achieve; we correlated the informants' ratings of narcissism with the targets' scores on the NPI ($r = .39$, $p < .01$; Table 1). This correlation represents a reasonable maximum threshold for the level of accuracy strangers could possibly achieve. Although the accuracy of snap judgments of narcissism was considerably lower than this benchmark (though the difference did not reach statistical significance using Hotelling's *T*-test with the Williams modification; $t = 1.41$, $p = .16$), this benchmark helps put the accuracy of observers' ratings into perspective.

Another way to measure the practical significance of this accuracy correlation is to compare it to the level of accuracy obtained at "zero-acquaintance" for extraversion, the most observable of the Big Five personality traits (John & Robins, 1993). The accuracy of observers' ratings of extraversion based on silent video clips is consistently in the range of .20–.30, with an average of .25 across four studies (Borkenau & Liebler, 1993; Yeagley, Morling, & Nelson, 2007). In light of the fact that extraversion is the most accurately judged of any Big Five domain at "zero-acquaintance" and that observers in these comparison studies had more information (e.g., body movements and dynamic facial expressions) than the observers in the present study, the accuracy level for snap judgments of narcissism obtained here is particularly impressive.

Question 2: Which components of narcissism are manifested in physical appearance? To examine which components of narcissism are best represented in physical appearance, we examined the correlation between the observers' judgments of narcissism and each of narcissism's narrower facets. We started by correlating observers' judgments of narcissism with the targets' extraversion, agreeableness, and self-esteem, the most well-documented trait components of narcissism. As shown in Table 2, observers' ratings of narcissism were associated with targets' levels of extraversion ($r = .25$, $p < .01$) and agreeableness ($r = -.25$, $p < .01$), but were not significantly correlated with targets' levels of explicit self-esteem ($r = .14$, n.s.).

Another model for breaking down narcissism into its narrower components is Emmons's NPI-derived set of facets of narcissism (Emmons, 1984; Emmons, 1987). Thus, we correlated observers' judgments of narcissism with targets' scores on the four facets of the NPI. The results presented in Table 2 show that observers' judgments captured most of the facets of narcissism, including both the most adaptive facet, leadership/authority ($r = .21$, $p < .01$) and the least adaptive facet, exploitativeness/entitlement ($r = .19$, $p < .05$). Not surprisingly, observers' judgments were most strongly correlated with the self-absorption/self-admiration facet of narcissism, the facet most associated with vanity and care for one's appearance

Table 1
Accuracy of snap judgments of narcissism and benchmark

	Accuracy (r)
Observer ratings of narcissism	.25**
Informant ratings of narcissism	.39**

Note. N = 160. Observers' ratings are the aggregate of seven observers' ratings based on physical appearance alone. Informant ratings are the aggregate of up to three well-acquainted informants. Accuracy was measured by correlating judgments with targets' NPI scores.
** p < .01, two-tailed.

Table 2
Snap judgments of narcissism correlated with narcissism components

	Observers' judgments (*r*)
Extraversion	.25**
Agreeableness	−.25**
Self-esteem	.14
NPI subscales:	
Leadership/authority	.21**
Self-absorption/self-admiration	.24**
Superiority/arrogance	.12
Exploitativeness/entitlement	.19*

Note. $N = 160$. Observers' ratings are the aggregate of seven observers' ratings based on physical appearance alone. Extraversion, agreeableness, and Self-esteem were measured using self-reports.
* $p < .05$, two-tailed.
** $p < .01$, two-tailed.

(r = .24, p < .01). Finally, observers' ratings of narcissism were not significantly correlated with the superiority/arrogance facet of narcissism (r = .12, n.s.).

Question 3: What are the valid cues to narcissism and what cues do observers use to judge narcissism? To understand how observers were able to form accurate impressions of narcissism based on only a photograph, we conducted an exploratory Brunswik lens model analysis. Specifically, we correlated the cues with the targets' NPI scores (to measure cue validity) and with observers' ratings of narcissism (to measure cue utilization). To control for mean differences between the sexes on the cue variables all cues were standardized within sex before computing the cue validity and cue utilization correlations. We also examined cue validity and cue utilization separately for each sex to examine whether some cues were valid or utilized for only one sex. Of the 16 cues, 10 applied to both sexes, 4 applied only to females, and 2 applied only to males. These 16 cues are presented in Table 3 along with the cue validity and cue utilization correlation for each cue.

As the cue validity column in Table 3 shows, the targets' NPI scores were associated with expensive and stylish clothes, a neat and organized appearance, an appearance that seemed to take a lot of preparation, and attractiveness. Among females, NPI scores were also associated with looking feminine, wearing makeup, having plucked eyebrows, and showing cleavage. Among males, NPI scores were negatively associated with wearing eyeglasses.

As the cue utilization column in Table 3 shows, the cues associated with observers' ratings of narcissism are largely the same as those associated with targets' NPI scores. However, in addition to utilizing most of the valid cues observers also appeared to draw on a few cues with weak validity correlations. For example, the presence of a fraternity or sorority symbol on the targets' clothing was associated with observers' ratings of narcissism, but was not strongly associated with actual NPI scores (although there was a weak, marginally significant correlation).

Finally, we conducted exploratory analyses to examine how the cues were related to each component of narcissism examined in Question 2. Table 4 presents the correlations between each cue and each component of narcissism. The first data column of Table 4 is identical to the cue validity column in Table 3 (i.e., correlations between cues and total NPI scores). These results show that, overall, global narcissism was more strongly related to these physical appearance cues than were any of the individual components of narcissism. However, each component also had distinctive patterns of cue correlations. For example, the most maladaptive component of narcissism, exploitativeness/entitlement, was the component most strongly associated with wearing expensive clothes and, in women, showing cleavage, while extraversion and self-esteem, arguably two of the more adaptive components of narcissism, were the components most strongly associated with cheerfulness and, along with the leadership/authority facet, attractiveness.

4. Discussion

Our study was based on the premise that narcissism should be manifested in physical appearance. Specifically, we predicted that narcissists' concern for their appearance, their desire to be the center of attention, and their pursuit of status would result in a distinct physical appearance. We also predicted that this distinct physical appearance would result in observers making accurate snap judgments of narcissism. Our findings support these predictions.

Table 3
Narcissism cue validity and cue utilization

Cue validity (r)	Cue (α)	Cue utilization (r)
	Full sample (N = 160)	
.16*	Fashionable clothes (.57)	.22**
.22**	Stylish clothes (.64)	.33**
.29**	Expensive clothes (.41)	.28**
−.18*	Plain clothes (.81)	.04
.13†	Frat/sorority type (1.00)	.38**
.17*	Organized appearance (.52)	.24**
.17*	Neat (vs. messy) appearance (.57)	.25**
.13	Cheerful (.88)	.23**
.28**	Amount of preparation required (.66)	.34**
.23**	Attractiveness (.82)	.44**
	Females only (N = 87)	
.26*	Feminine (vs. masculine) (.45)	.40**
.22*	Makeup (.83)	.55**
.23*	Plucked eyebrows (.83)	.41**
.23*	Cleavage showing (.65)	.26*
	Males only (N = 73)	
−.25*	Eyeglasses (.92)	−.28*
.15	Muscular (.47)	.35**

Note. Cue validity is the correlation between cue and targets' NPI scores; Cue utilization is the correlation between cue and observers' ratings of narcissism. All cue variables were standardized within sex before computing the cue validity and cue utilization correlations. Cue alphas are based on two coders.

† p < .10, two-tailed.
* p < .05, two-tailed.
** p < .01, two-tailed.

Table 4
Cue validity correlations between physical appearance cues and components of narcissism

	NPI	Ext	Agr	SE	LA	SS	SA	EE
Full sample (N = 160)								
Fashionable clothes (.57)	.16*	.06	−.14†	−.01	.13	.07	.05	.16*
Stylish clothes (.64)	.22**	.24**	−.17*	.09	.22**	.17*	.11	.21**
Expensive clothes (.41)	.29**	.17*	−.04	.08	.21**	.18*	.17*	.30**
Plain clothes (.81)	−.18*	−.07	−.03	.03	−.12	−.14†	−.29**	−.07
Frat/Sorority type (1.00)	.13†	.06	−.21*	.09	.13	.12	.08	.11
Organized appearance (.52)	.17*	.10	−.09	.10	.12	.21**	.02	.21**
Neat (vs. messy) appearance (.57)	.17*	.09	−.11	.14†	.16*	.21**	.03	.13
Cheerful (.88)	.13	.18*	−.03	.19*	.13	.15†	.06	.10
Amount of preparation required (.66)	.28**	.17*	−.07	.12	.22**	.21**	.18*	.21**
Attractiveness (.82)	.23**	.31**	−.12	.27**	.30**	.20*	.12	.10
Females only (N = 87)								
Feminine (vs. masculine) (.45)	.26*	.12	−.15	.12	.20†	.28**	.12	.19†
Makeup (.83)	.22*	.12	−.19†	.11	.19†	.22*	.09	.11
Plucked eyebrows (.83)	.23*	.14	−.04	.11	.23*	.23*	.08	.08
Cleavage showing (.65)	.23*	.02	−.30**	.01	.21*	.09	.09	.31**
Males only (N = 73)								
Eyeglasses (.92)	−.25*	−.26*	−.01	−.25*	−.16	−.18	−.26*	.14
Muscular (.47)	.15	.03	−.15	.17	.16	.15	.19	.01
Average	.21	.13	.12	.12	.19	.18	.12	.15

Note. The first data column is identical to the first data column in Table 3. NPI, Narcissistic Personality Inventory total score; LA, leadership/authority subscale of NPI; SS, self-absorption/self-admiration subscale of NPI; Ext, extraversion self-ratings on BFI; Agr, agreeableness self-ratings on BFI; SE, single-item self-esteem self-ratings; SA, superiority/arrogance subscale of NPI; E, exploitativeness/entitlement subscale of NPI. All cue variables were standardized within sex before computing the correlations.

† $p < .10$, two-tailed.
* $p < .05$, two-tailed.
** $p < .01$, two-tailed.

Our results show that narcissism can be judged with some degree of accuracy on the basis of physical appearance alone. Furthermore, the magnitude of this effect ($r = .25$) is sizeable considering how little information was available to the observers. In comparison, well-acquainted informants ratings of narcissism correlated .39 with the criterion in the present study, and published studies of judgments based on silent video clips tend to yield accuracy correlations around .25 for extraversion, the most accurately-judged of the traits commonly examined (Borkenau & Liebler, 1993; Yeagley et al., 2007). One study examining the accuracy of personality judgments based on photographs has yielded accuracy correlations ranging from .15 to .25 across the Big Five personality traits with an average of .19 (Robins, Gosling, & Donahue, 1998) and another similar study yielded accuracy correlations ranging from .14 to .37 with an average of .24 (Naumann et al., 2008). Thus, it seems narcissism can be judged at least as accurately and easily from physical appearance as any of the Big Five personality traits.

Our analyses also show that some of the narrower traits that comprise narcissism were more clearly manifested in physical appearance than others. Specifically, narcissists' high levels of extraversion and low levels of agreeableness seemed to play an important role in observers' judgments of narcissism, whereas narcissists' high levels of explicit self-esteem did not seem to influence observers' judgments as much. In addition, consistent with our hypothesis that it is narcissists' vanity and concern about appearances that would lead to observable manifestations, observers' judgments of narcissism were most strongly related to the self-absorption/self-admiration facet of the NPI.

Our analyses also support our predictions about the specific ways in which narcissism would be manifested in physical appearance. We predicted that narcissists' concern with their appearance, their desire for attention, and their pursuit of status would be associated with specific physical appearance cues. Consistent with this prediction, our exploratory analyses suggest that narcissism is associated with a neat, organized appearance, flashy, revealing clothing, greater adornment (e.g., makeup), and expensive, stylish clothes. These results suggest that narcissists do seem to alter their appearance (consciously or unconsciously) in a way that reflects their appearance-oriented motives. In addition, narcissists' distinct appearance can account for the accuracy of observers' ratings.

Finally, our findings show that judgments of narcissism based on physical appearance capture many of the distinguishing characteristics of narcissism. Judgments of narcissism correlate with three of the four facets of the Narcissistic Personality Inventory, and show the expected pattern of correlations with other personality traits (e.g., extraversion and agreeableness). Thus, the image that narcissists create appears to capture the unique constellation of personality traits characteristic of narcissism.

4.1. Implications

Our findings support existing theories of narcissism. Specifically, the field's current understanding of narcissism entails that narcissism is associated with vanity, exhibitionism, and status-seeking (Morf & Rhodewalt, 2001; Raskin & Terry,

1988). Our findings show that these values are reflected in narcissists' physical appearance—in the clothes they wear, the effort they put into their appearance, and their less inhibited display of their bodies. These results provide important, real-world evidence for prominent theories of narcissism.

In addition, our findings are consistent with recent research showing that narcissism is associated with unrestricted sociosexuality (Foster, Shrira, & Campbell, 2006). Specifically, the cues associated with narcissism in our study are consistent with less restricted sexual attitudes and behaviors (e.g., showing cleavage). Furthermore, the finding that observers can judge narcissism with above-chance accuracy on the basis of physical appearance alone suggests that narcissists may use their clothing and appearance to signal or abet their mating strategies.

Finally, the remarkable accuracy of snap judgments of narcissism likely reflects the importance of this trait in interpersonal interactions. Narcissism has important consequences both for narcissists and those who must interact with them. For those who must interact with narcissists, they face a host of unpleasant or maladaptive behaviors such as self-deception (even in the face of disconfirming evidence; Robins & John, 1997), anger, hostility, and aggression in the face of ego threat (Stucke & Sporer, 2002), and self-enhancement and self-serving attributions (Campbell, Reider, Sedikides, & Elliot, 2000; Kurt & Paulhus, 2008). In fact, narcissists are more likely to be disliked by peers (even after making a fleeting positive impression; Paulhus, 1998) and often report experiencing negative interactions with friends and family members (Helgeson & Fritz, 1999). Perhaps the ability to judge narcissism quickly and accurately is in the service of avoiding such potentially unpleasant interactions.

4.2. Limitations and future directions

We have shown that college students are able to develop fairly accurate impressions of their peers' levels of narcissism. However, we do not know whether these findings generalize to other domains and populations. For example, how is narcissism manifested in job interviews, online interactions, or dating contexts? How accurate are perceptions in these domains? Previous research has shown that narcissists can make positive first impressions in face-to-face settings (Paulhus, 1998). Furthermore, prior research has found few valid cues to arrogance (a construct related to narcissism) in verbal and nonverbal behavior (Gifford, 1994; Gifford & Hine, 1994). Together, these findings suggest that narcissists may be able to hide their arrogance in brief interactions, or even create positive impressions using their charm and sociability, and that narcissism may thus be easier to detect on the basis of a photograph than a face-to-face interaction.

Another limitation of our study is that the cue analyses were exploratory in nature and should be interpreted with caution. Although the cue validity and cue utilization correlations are consistent with existing theories about narcissists' preoccupation with their appearance, we did not make specific predictions about which cues would be associated with narcissism. By culling the cues from a broader list of 160, we left ourselves open to Type I error. Thus, it would be fruitful to replicate these correlations in future research. This is especially true for the correlations between the cues and the individual components of narcissism presented in Table 4.

In addition, we could not conclusively establish what cues observers actually used to form their impressions. The lens model analyses only demonstrate that observers' judgments were related to appearance cues, but we cannot be sure that observers actually used those cues to judge narcissism. Similarly, we could not conclusively establish how the valid cues came to be associated with narcissism. Do narcissists deliberately alter their appearance, and if so, what are their motives in doing so?

In conclusion, narcissism does have a distinct physical signature, and can be detected from physical appearance alone. Our understanding of the psychological aspects of narcissism can now be supplemented with a better understanding of its physical manifestations. Narcissus's obsession with his reflection was likely due in part to his egotism, but perhaps it also had something to do with the well-groomed, well-dressed image he saw in the pond.

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