



Brief Report

Narcissism and attractiveness

Nicholas S. Holtzman*, Michael J. Strube

Washington University in Saint Louis, Psychology, 1 Brookings Drive, C.B. 1125, St. Louis, MO 63130-4899, United States

ARTICLE INFO

Article history:

Available online 21 October 2009

Keywords:

Narcissism
 Narcissistic personality inventory
 Personality
 Attraction
 Attractiveness
 Facial attractiveness
 Physical attractiveness
 Mating strategies
 Evolutionary psychology

ABSTRACT

Is narcissism related to observer-rated attractiveness? Two views imply that narcissism is unrelated to attractiveness: positive illusions theory and Feingold's (1992) attractiveness theory (i.e., attractiveness is unrelated to personality in general). In contrast, two other views imply that narcissism is positively related to attractiveness: an evolutionary perspective on narcissism (i.e., selection pressures in short-term mating contexts shaped the evolution of narcissism, including greater selection for attractiveness in short-term versus long-term mating contexts) and, secondly, the self-regulatory processing model of narcissism (narcissists groom themselves to bolster grandiose self-images). A meta-analysis ($N > 1000$) reveals a small but reliable positive narcissism–attractiveness correlation that approaches the largest known personality–attractiveness correlations. The finding supports the evolutionary and self-regulatory views of narcissism.

© 2009 Elsevier Inc. All rights reserved.

1. Introduction

Narcissism is a personality construct often researched in clinical, personality, and social psychology. Core features include being manipulative, over-bearing, exhibitionistic, entitled, vain, arrogant, and self-sufficient (e.g., Raskin & Terry, 1988). Are narcissists physically attractive? Conspicuously missing from modern research is evidence for a positive correlation between narcissism and physical attractiveness—a correlation implied by the original myth about the attractive Narcissus, who fell in love with his own reflection (Ovid, 1 A.C.E./2004). The primary goal of the current paper is to summarize evidence about this correlation. In light of the evidence, we re-evaluate four views that lead to various predictions about the effect: the positive illusions view of narcissism (e.g., Gabriel, Critelli, & Ee, 1994), the theory that attractiveness is statistically independent of personality (Feingold, 1992), the emerging view that narcissism happened to evolve in response to the viability of short-term mating (Holtzman & Strube, in preparation), and the self-regulatory processing model of narcissism (Morf & Rhodewalt, 2001). Finally, more generally we advocate that people revisit the wisdom embedded in the ancient myth about Narcissus.

Narcissism has been well-described in the literature. It is typically operationalized using the relatively recently created 40-item forced choice narcissistic personality inventory (NPI, Raskin & Terry, 1988). A sample item is “Modesty doesn't become me” versus the non-narcissistic item “I am essentially a modest person.”

When narcissists take personality questionnaires using the most prominent model of personality, the Big Five (Goldberg, 1992), they tend to score high on extraversion and low on agreeableness (e.g., Vazire, Naumann, Rentfrow, & Gosling, 2008). The other factors (openness, conscientiousness, neuroticism) are not consistently related to narcissism. These five broad factors, however, are a level removed from precise facets that may portend a narcissism–attractiveness correlation. On more specific facets of personality, narcissists score high on vanity (Raskin & Terry, 1988; for behavioral evidence see Vazire et al., 2008) and exhibitionism (Buss & Chiodo, 1991). These facet correlations suggest that narcissists are self-focused and prone to publicly displaying their bodies. One plausible yet thus far unsubstantiated explanation for these facet correlations is that narcissism and attractiveness are positively correlated; thus, attractiveness may be the underlying cause of narcissists' self-focus and public display.

However, two prominent literatures appear to imply that narcissism and attractiveness are *uncorrelated*: the narcissistic positive illusions literature and the part of attractiveness literature that emphasizes how attractiveness is largely uncorrelated with personality. First, the positive illusions view holds that narcissists harbor grandiose beliefs, such as unsubstantiated beliefs about their own attractiveness (e.g., Gabriel et al., 1994). However, the existence of narcissistic illusions does not require that the narcissism–attractiveness correlation is zero. For example, a narcissist may be more attractive than average to observers, yet perceive himself to be much more attractive than is justified. Nevertheless, this perspective appears to imply a zero correlation between narcissism and attractiveness.

* Corresponding author. Fax: +1 314 935 7588.

E-mail address: nsholtzm@artsci.wustl.edu (N.S. Holtzman).

Similarly, a prominent view in the attractiveness literature (Feingold, 1992)—that attractiveness is independent of personality—clearly leads to the prediction that narcissism may be unrelated to attractiveness. This literature has emphasized the lack of personality–attractiveness relationships. According to this theory, attractive people are mistakenly thought to exhibit certain personality traits because observers tend to stereotype attractive individuals—observers perceive personality–attractiveness correlations that are not real. Like the narcissistic illusions literature, Feingold's (1992) view implies that narcissism may be unrelated to attractiveness.¹

In contrast, two other literatures lead to the prediction that narcissism is positively correlated with attractiveness. First, a positive narcissism–attractiveness correlation is predicted by an emerging evolutionary perspective on narcissism (Holtzman & Strube, in preparation). This perspective emerged based on evidence that narcissists tend to pursue short-term mating (i.e., brief, uncommitted, casual, or promiscuous sexual relationships; e.g., Reise & Wright, 1996) and narcissists are capable of solving many problems that short-term mating presents (Holtzman & Strube, in preparation). One of these problems, to be explored here, is physically attracting mates; evidence indicates that physical attractiveness is more desirable in short-term mating contexts than long-term mating contexts (Gangestad, Garver-Apgar, Simpson, & Cousins, 2007, Table 3; Buss & Schmitt, 1993, Table 2). Therefore, if short-term mating contexts are favorable to narcissistic traits (Holtzman & Strube, in preparation), and if short-term mating contexts are differentially favorable to attractive people, then this convergence of selection pressures should lead to a positive narcissism–attractiveness correlation.

Similarly, a positive narcissism–attractiveness correlation is predicted from the dynamic self-regulatory processing model of narcissism (Morf & Rhodewalt, 2001). According to this theory, narcissists attempt to regulate their behavior in ways that maximize positive feedback from other people, which then leads to the ultimate goal of maintaining a grandiose self-image. Accordingly, higher levels of attractiveness in narcissists may be due to their self-regulation, such as grooming behaviors, which lead to positive feedback from others that enhances self-views. Thus, the self-regulatory view converges with the evolutionary view on the prediction that narcissists have higher levels of attractiveness, although these views differ in explaining why this correlation exists (evolution vs. grooming). Other theories of narcissism are silent on this issue.

In review, the positive illusions perspective and Feingold's (1992) view on personality–attractiveness independence both lead to the prediction that narcissism and attractiveness are uncorrelated. In contrast, the evolutionary perspective and self-regulatory perspective on narcissism both lead to the prediction that narcissism and attractiveness are positively correlated.

2. Method

We found relevant articles via conducting a carefully executed three-step process. First, we used the most comprehensive search engine available for psychology literature—the PsychINFO database. We limited the search to journal articles and book chapters that appeared since the first operationalization of narcissism, which took place in 1979. We placed six pairs of keywords in the All Text search fields in PsychINFO: “narciss*” and “person-perception”, “narciss*” and “attractiveness”, “narciss*” and “facial attrac-

tiveness”, “personality disorders” and “person-perception”, “personality disorders” and “attractiveness”, and “personality disorders” and “facial attractiveness”. The All Text option returns articles that contain the searched word at any place in the abstract, keywords, journal or book title, article or chapter title, subject line, or table of contents. This process returned 48 articles and chapters. Seven of the articles contained relevant data (Bleske-Rechek, Remiker, & Baker, 2008; Buffardi & Campbell, 2008; Davis, Dionne, & Shuster, 2001; Gabriel et al., 1994; Oltmanns, Friedman, Fiedler, & Turkheimer, 2004; Paulhus, 1998; Vazire et al., 2008). In the second step in our search, we wanted to make sure that we did not omit any articles written during the emergence of the narcissism literature. Therefore, for potential leads we examined the references in the most comprehensive meta-analysis on attractiveness (Feingold, 1992) as well as the most widely-cited article on the narcissism–attractiveness relationship (Gabriel et al., 1994); this search led us to include one article that PsychINFO did not return (Raskin & Terry, 1988). Finally, we combed the biology literature as well, because it is excluded from PsychINFO, yet it contains articles about physical attractiveness; we found one additional article to include (Havlicek, Roberts, & Flegr, 2005).

During this search, we excluded correlations based on self-rated attractiveness. Importantly, this constraint allowed us to be assured that we were only exploring attractiveness in a relatively objective way: using other-rated, not self-rated attractiveness. In total, this comprehensive procedure produced nine articles, 18 effect sizes, and 1039 target participants.

3. Results

Table 1 lists the studies included in the review and the following details: target gender, narcissism measure, the type of stimulus that was shown to the raters, the number of raters per target participant, sample size, all narcissism–attractiveness correlations within each article (by sex, if reported), significance levels, overall narcissism–attractiveness correlation for the study (“Study *r*”), and the Fisher's *r*-to-*z* transformation for the Study *r*'s. Because some effects are nested within studies, we calculated the mean for each study, producing independent effect sizes.

We conducted Fisher's *r*-to-*z* transformations before calculating the overall mean effects that are listed near the bottom of Table 1. The average unweighted Fisher's *z* is .14 (*SD* = .10; *Md* = .16), which is significantly different from zero, $t(8) = 4.22$, $p = .003$. Therefore, narcissism is positively associated with physical attractiveness (the backtransformed mean correlation is .14). A χ^2 test of heterogeneity (Rosenthal, 1991, Eq. (15)) did not show evidence of significant variation among the effects, above that expected by chance, $\chi^2(8) = 10.40$, $p > .10$, indicating that the effect sizes were probably not moderated by other variables. Accordingly, moderators are not explored here.

4. Discussion

Across studies, the median correlation between narcissism and attractiveness is .16 ($d = .32$), and the mean is .14 ($d = .28$), without adjusting for unreliability in measurement. The sizes of these correlations are best understood in comparison to the largest known values for personality–attractiveness correlations, which are available in the most prominent meta-analysis on the topic. In Feingold (1992), the highest median correlation across all studies for all explored personality–attractiveness correlations was .20 and the highest mean was .22. Thus, the comparisons are .16 versus the largest known value of .20, and .14 versus the largest known value of .22. Therefore, among personality variables narcissism does have one of the larger correlations with attractiveness, although clearly

¹ Attractiveness researchers had been unable to explore narcissism until its measurement had been operationalized and disseminated. Major meta-analyses of the attractiveness literature, such as Feingold (1992), took place before the measure had been disseminated widely, and therefore could not have included narcissism–attractiveness correlation estimates.

Table 1
Correlations between narcissism and attractiveness (in ascending order by study *r*).

Author (year)	Target gender	Narcissism measure	Stimulus type rated	Raters per target	<i>N</i>	<i>r</i>	<i>p</i>	Study <i>r</i>	Fisher <i>Z_r</i>
Gabriel et al. (1994)	100% F	NPI	Shoulders-up photo	2 observers	84	-.06	ns	-.08	-.08
Gabriel et al. (1994)	100% M	NPI	Shoulders-up photo	2 observers	62	-.10	ns	—	—
Raskin et al. (1988)	51% F	Authority	Entire-body in-person	10 observers	57	.21	ns	.07	.07
Raskin and Terry (1988)	51% F	Vanity	Entire-body in-person	10 observers	57	.41	<.05	—	—
Raskin and Terry (1988)	51% F	Exhibitionism	Entire-body in-person	10 observers	57	.00	ns	—	—
Raskin and Terry (1988)	51% F	Exploitative.	Entire-body in-person	10 observers	57	-.02	ns	—	—
Raskin and Terry (1988)	51% F	Entitlement	Entire-body in-person	10 observers	57	-.10	ns	—	—
Raskin and Terry (1988)	51% F	Self-suff.	Entire-body in-person	10 observers	57	-.04	ns	—	—
Raskin and Terry (1988)	51% F	Superiority	Entire-body in-person	10 observers	57	.04	ns	—	—
Bleske-Rechek et al. (2008)	100% M	NPI	Shoulders-up photo	57 observers	51	.18	ns	.11	.11
Bleske-Rechek et al. (2008)	100% F	NPI	Shoulders-up photo	57 observers	51	.03	ns	—	—
Havlicek et al. (2005)	100% M	IPIP	Body odor	65 observers	48	.14	N/A	.14	.14
Paulhus (1998)	62% F	NPI	Entire-body in-person	6 peers	89	.16	ns	.16	.16
Buffardi and Campbell (2008)	63% F	NPI	Facebook photo	5 observers	156	.18	<.05	.18	.18
Oltmanns et al. (2004)	58% M	SIDP	Waist-up 30-s vid.	17 observers	231	.12	ns	.20	.20
Oltmanns et al. (2004)	58% M	Peer-nom	Waist-up 30-s vid.	17 observers	229	.27	<.05	—	—
Davis et al. (2001)	100% F	NPI	Shoulders-up photo	8 observers	102	.21	ns	.21	.21
Vazire et al. (2008)	54% F	NPI	Entire-body photo	7 observers	160	.23	<.01	.23	.23
Overall mean correlation (unweighted)									.14
Overall mean correlation (weighted by <i>N</i>)									.15
Overall median									.16
Overall <i>SD</i>									.10

F = female. IPIP = international personality item pool. M = male. Narc. = narcissism. Peer-nom = peer-nomination procedure (see Oltmanns et al., 2004, for details). Self-suff. = self-sufficiency. SIDP = structured interview for DSM-IV personality. Vid = video. Note: Bleske-Rechek et al. (2008) values were obtained via personal communication.

the absolute size of the correlation is small. This small yet reliable correlation means that there is a kernel of truth in the ancient myth about Narcissus. This finding has four theoretical implications.

First, a current trend in personality psychology is to conceptualize narcissism as a set of positive illusions (e.g., narcissists might overstate their intelligence or attractiveness)—narcissistic illusions. The trend in the field has led to interesting demonstrations and descriptions of narcissistic self-deception and cognitive biases (e.g., Gabriel et al., 1994; Paulhus, 1998). However, unfortunately the trend has de-emphasized the examination of correlations between narcissism and positive attributes (e.g., attractiveness, intelligence). Thus, the positive illusions view of narcissism has been promoted without being questioned. Our paper questions whether the positive illusions view can be applied to narcissists, at least for attractiveness.

However, it is possible that narcissists have higher-than-average positive illusions, even above and beyond their higher-than-average attractiveness. What needs to be done is a carefully executed study in which data on narcissism, self-rated attractiveness, and observer-rated attractiveness are collected; then, a researcher can explore whether narcissism predicts the degree to which self-rated attractiveness exceeds observer-rated attractiveness (e.g., using residuals), which would indicate whether narcissists have positive illusions above and beyond their higher-than-average attractiveness. Such positive illusions are somewhat less likely for narcissists, given our findings, simply because narcissists are more attractive than average. For example, one can imagine the extreme case in which the correlation between narcissism and observer-rated attractiveness is .90, and narcissists have little room for illusions. That is, narcissists have a lower ceiling for the range of their positive illusions (smaller range for positive residuals) because they reside near the top of the slope. It would be worth exploring whether—against the odds—narcissists have higher-than-average positive illusions about their physical attractiveness. Although narcissists' smaller range for positive illusions does suggest that narcissistic illusions may have been over-emphasized in the literature, future research will have to settle the debate.

Second, a prominent view in the attractiveness literature has focused on null findings between personality and attractiveness (e.g., Feingold, 1992). We speculate that this emphasis may have dissuaded researchers from exploring the relationships between per-

sonality variables and attractiveness. This is an unfortunate trend because attractiveness is not entirely separate from personality; meaningful relationships can be found. Exploring the personality–attractiveness nexus can provide insights into which personalities are associated with attractiveness, which can have implications for a variety of outcomes (e.g., promiscuous sex, dating, romance, marriage, reproduction, and human evolution).

Taken together, two zeitgeists—in the attractiveness literature and in the narcissism literature—emphasized the null effect (i.e., that there is no narcissism–attractiveness correlation). Interestingly, the two publications on record that emphasize the positive illusions view were two that found a null effect (Bleske-Rechek et al., 2008; Gabriel et al., 1994) and also reported two of the smallest effects we found. We postulate that the two literatures and two zeitgeists may have dissuaded researchers from exploring the narcissism–attractiveness correlation. If these literatures are biased in favor of null effects, then our estimate of the correlation may be biased downwards, and the effect may be slightly larger.

Two views successfully predicted the positive narcissism–attractiveness correlation, and therefore receive support: an evolutionary view and a self-regulatory view of narcissism. The evolutionary view is that narcissism happened to evolve in response to several problems posed by short-term mating (i.e., having brief sexual relationships). The problems of short-term mating include that a person be willing and able to: (a) try short-term mating, (b) compete with one's own gender, (c) rape, and (d) repel mates shortly after intercourse (Holtzman & Strube, in preparation)—narcissists tend to solve each problem. At the same time, short-term mating contexts may have selected for attractive people, more than long-term mating contexts; this premise is based on current evidence (Gangestad et al., 2007, Table 3; Buss & Schmitt, 1993, Table 2). Therefore, not only are short-term mating contexts favorable to narcissistic traits, but also they select for attractiveness—consequently, short-term mating contexts may have led to the emergence of narcissists above-average in attractiveness. The correlation found here supports the view that narcissism may have evolved as a package of both psychological and morphological solutions to the problems posed by short-term mating.

It is also likely that self-regulatory behaviors among narcissists are exerted to modify personal appearance, in an effort to garner

praise that bolsters self-views. Thus, the self-regulatory processing model of narcissism (Morf & Rhodewalt, 2001) can also account for the positive narcissism–attractiveness correlation. Given these competing theories about how a narcissism–attractiveness correlation comes about, it will be important in future research to explore which view is a better explanation. Are narcissists attractive because they are innately more beautiful (as our evolutionary view suggests), because they take better care of themselves (as the self-regulatory view suggests), or because of a combination of these causes?

In review, the positive correlation between narcissism and attractiveness has four theoretical implications: (a) the positive illusions view is partially incorrect, insofar as it holds that lofty narcissistic self-views are unfounded; (b) one prominent zeitgeist in the attractiveness literature—that personality is independent of attractiveness—is also partially incorrect; (c) an emerging evolutionary view—narcissism presents a set of solutions to the problems of short-term mating—receives support; (d) the self-regulatory processing model of narcissism successfully predicts the correlation. Given that narcissists are more attractive than average, the new question is: why?

Acknowledgments

The authors would like to thank W. Keith Campbell and three anonymous reviewers for their valuable and constructive comments.

References

* If an article was used in the meta-analysis, then its reference is marked with an asterisk.

* Bleske-Rechek, A., Remiker, M. W., & Baker, J. P. (2008). Narcissistic men and women think they are so hot – but they are not. *Personality and Individual Differences*, 45, 420–424.

- * Buffardi, L. E., & Campbell, W. K. (2008). Narcissism and social networking websites. *Personality and Social Psychology Bulletin*, 34, 1303–1314.
- Buss, D. M., & Chiodo, L. M. (1991). Narcissistic acts in everyday life. *Journal of Personality*, 59, 179–215.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: A contextual evolutionary analysis of human mating. *Psychological Review*, 100, 204–232.
- * Davis, C., Dionne, M., & Shuster, B. (2001). Physical and psychological correlates of appearance orientation. *Personality and Individual Differences*, 30, 21–30.
- Feingold, A. (1992). Good-looking people are not what we think. *Psychological Bulletin*, 111, 304–341.
- * Gabriel, M. T., Critelli, J. W., & Ee, J. S. (1994). Narcissistic illusions in self-evaluations of intelligence and attractiveness. *Journal of Personality*, 62, 143–155.
- Gangestad, S. W., Garver-Apgar, C. E., Simpson, J. A., & Cousins, A. J. (2007). Changes in women's mate preferences across the ovulatory cycle. *Journal of Personality and Social Psychology*, 92, 151–163.
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, 4, 26–42.
- * Havlicek, J., Roberts, S. C., & Flegr, J. (2005). Women's preference for dominant males' odour: Effects of menstrual cycle and relationship status. *Biology Letters*, 1, 256–259.
- Holtzman, N. H., & Strube, M. J. (in preparation). Short-term mating shaped the evolution of narcissism.
- Morf, C. C., & Rhodewalt, M. F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, 12, 177–196.
- * Oltmanns, T. F., Friedman, J. N. W., Fiedler, E. R., & Turkheimer, E. (2004). Perceptions of people with personality disorders based on thin slices of behavior. *Journal of Research in Personality*, 38, 216–229.
- Ovid (2004). *Metamorphoses*. New York: W.W. Norton & Company, Inc (original work published 1 A.C.E., C. Martin, Trans.).
- * Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, 74, 1197–1208.
- * Raskin, R. N., & Terry, H. (1988). A principal components analysis of the narcissistic personality inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, 54, 890–902.
- Reise, S. P., & Wright, T. M. (1996). Personality traits, cluster B personality disorders, and sociosexuality. *Journal of Research in Personality*, 30, 128–136.
- Rosenthal, R. (1991). Meta-analysis: A review. *Psychosomatic Medicine*, 53, 247–271.
- Vazire, S., Naumann, L. P., Rentfrow, P. J., & Gosling, S. D. (2008). Portrait of a narcissist: Manifestations of narcissism in physical appearance. *Journal of Research in Personality*, 42, 1439–1447.