

Feeling good about oneself heightens, not hinders, the goodness in narcissism

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Abstract

A growing body of research has sought to better understand narcissistic individuals' prosocial behavior and moral identity claims. Here, we argue that a precise understanding of these phenomena also requires understanding the role of self-esteem in narcissistic individuals. Specifically, we hypothesized that narcissism and self-esteem synergize to promote altruism tendencies and an internalized moral identity. A large, US-adult sample (N = 405) completed indices of narcissism, self-esteem, altruism-driven behavior, internalized and symbolic moral identities, dispositional prosocial emotions, and the Big Five personality dimensions. Consistent with predictions, narcissism positively interacted with self-esteem on altruism-behavior tendency and internalized moral identity. In essence, enhancements in self-esteem increases narcissistic individuals' tendency to act altruistically and to feel intrinsically motivated to be moral. Auxiliary analyses revealed that as self-esteem increased, narcissism related to higher openness to experience. The present findings highlight the importance of studying the synergy between narcissism and self-esteem to better understand social behavior.

Keywords Morality · Narcissism · Prosocial tendencies · Self-esteem

Narcissism involves the subjective feeling of superiority over others (Raskin and Terry 1988) and is considered a malignant personality (Paulhus and Williams 2002). Narcissism is a complex construct (see Miller et al. 2014), and its complexity raises questions about its conceptualization. Here, we focus on subclinical dimensional grandiose narcissism (Raskin and Terry 1988). We do not focus on vulnerable narcissism, which reflects a more pathological variant of narcissism (Hendin and Cheek 1997; Pincus et al. 2009). Hence, when we reference narcissism, we are referring to grandiose narcissism.

Narcissism is marked by grandiosity, egotism, entitlement, and a manipulative and exploitative interpersonal style (Raskin and Terry 1988). A central feature of narcissism is a presumed quest for glory (Back et al. 2013; Raskin et al. 1991; Wallace 2011). Most studies on narcissism focus on its relations to socially-toxic outcomes (anger, vengeance, aggression; Baumeister et al. 2000; Donnellan et al. 2005; Krizan and Johar 2015; Rasmussen 2016; Wallace 2011). But, there has been a shift toward studying narcissism in

relation to prosocial outcomes (Brunell et al. 2014; Kauten and Barry 2014; Konrath et al. 2016). Although work in this area is nascent, the majority of it suggests that helping executed by narcissistic individuals is largely selfish and is not "altruistic" (i.e., designed merely to benefit others; Brunell et al. 2014; Hart et al. 2018b; Konrath et al. 2016). This suggestion accords with evidence indicating that narcissistic individuals are lower in presumed drivers of altruistic behavior including privately endorsing characteristics of "moral" people (Carlson et al. 2011; Hart and Adams 2014; Hart et al. 2018a; Raskin and Terry 1988) and experiencing compassion (Hepper et al. 2014; Watson et al. 1984).

To advance this developing area of narcissism research, we examined whether relations between narcissism and altruistic tendencies might be precisely understood by considering the synergistic influence of trait self-esteem. Self-esteem reflects the extent to which people perceive the self to be adequate (Rosenberg 1965). Critically, unlike narcissism, self-esteem appears indicative of a prosocial and moral orientation (Brunell et al. 2014; Fu et al. 2017). People with high self-esteem engage in more other-focused self-presentation (Hart et al. 2017a), are more helpful to strangers (Fu et al. 2017), are more accepting of humanitarian and altruistic values (Brunell et al. 2014), and are less aggressive (Donnellan et al. 2005). Rosenberg (1965) posited that self-esteem is positively



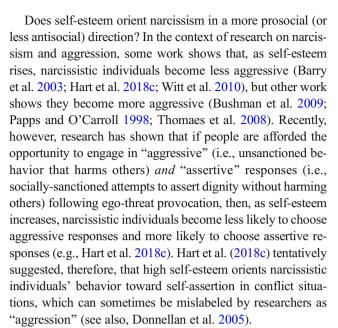
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associated with strong ties to societal institutions and conventions (religion, marriage), and such societal ties generally compel features of a "moral" orientation (e.g., dutifulness; self-discipline; Hill and Roberts 2011; see also Hirschi 2002). Other positions highlight how feelings of inadequacy can produce anger and resentment toward others that deter from a prosocial existence (Kernberg 1975; Ronningstam 2009; Tracy and Robins 2003); still other positions highlight how feelings of inadequacy can create pathological levels of negative self-focused attention (Ingram 1990) that, in turn, precludes an altruistic orientation.

In theory, if self-esteem is indicative of a prosocial orientation and if narcissism, in part, reflects a quest for glory and status (Back et al. 2013; Raskin et al. 1991; Wallace 2011), then self-esteem is likely to give a more prosocial direction to this narcissistic quest (e.g., Hart et al. 2018c). This idea is generally consistent with various perspectives on narcissism. For example, Back et al. (2013) postulated that narcissistic status striving can take a benign (e.g., appearing admirable and charming) or malignant form (e.g., putting others down). Logically, low self-esteem constrains status striving to putting others down (to make others seem of even lesser value than a subjectively worthless self), but high self-esteem emboldens self-promotion (i.e., expressing one's worth) and pursuing admirable accomplishments and personal characteristics (Hart et al. 2018c). Moreover, Finkel et al. (2009) have suggested that narcissistic individuals' relationship dysfunction is, in part, due to reduced chronic activation of a communal orientation. In their work, priming a communal orientation inspired narcissistic individuals to experience greater commitment to others. High self-esteem appears indicative of a heightened chronic communal orientation (see Brunell et al. 2014; Campbell et al. 2002; Fu et al. 2017), so its presence in narcissism might have a similar influence (i.e., to guide narcissism in a more communal and, hence conventionally moral, direction). Finally, according to some clinical lore (Gerzi 2005; Kernberg 1975; Ronningstam 2009), narcissistic individuals often defend against thoughts of inadequacy by casting other people as wicked (i.e., devaluing) or life as cruel. Presumably, if narcissistic individuals' self-esteem were high (vs. low), they would take a more favorable perspective on social life and, potentially, behave more prosocially.

This potential synergy of narcissism and self-esteem on prosocial constructs has practical implications for improving societal outcomes. Indeed, narcissism seems generally dysfunctional for self and society, but, if narcissism essentially reflects a quest for status (Back et al. 2013; Raskin et al. 1991; Wallace 2011), it might be channeled in a prosocial direction that would benefit the self and others (for a similar idea, Ellis et al. 2016). In this case, it becomes critical to study how features of people influence how narcissism is expressed, and the present study is in this vein.



To our knowledge, only one study has examined the synergy of narcissism and self-esteem in relation to morality and prosocial tendencies (Zuo et al. 2016). First, this study revealed positive bivariate correlations between narcissism and moral identity internalization (i.e., moral traits such as hardworking, friendly, and honest are central to one's private self-concept; Aquino and Reed 2002) and moral identity symbolization (i.e., moral traits are central to one's public selfpresentations; Aquino and Reed 2002). The former correlation challenges current conceptions of narcissistic individuals as opportunistic helpers (Brunell et al. 2014; Hart et al. 2018b; Konrath et al. 2016) who do not privately endorse moral traits (Carlson et al. 2011; Hart and Adams 2014; Hart et al. 2018a; Raskin and Terry 1988). Second, Zuo et al. (2016) revealed that these correlations were reduced as self-esteem increased. In other words, high self-esteem apparently oriented narcissistic individuals away from private and public expressions of morality. Zuo et al. (2016) tentatively suggested that selfesteem acts to reduce narcissistic individuals' self-esteem striving, thereby reducing their prosocial orientation. The researchers acknowledged that their findings could be specific to their sample (i.e., Chinese participants) and called for additional work with samples from different cultures. Indeed, Zuo et al.'s findings seemingly contrast with how the interaction manifests on aggressive vs. assertive responses to ego-threat in a US, adult sample (Hart et al. 2018c).

In response to Zuo et al.'s call for follow-up research, we examined the synergistic effects of narcissism and self-esteem on moral identity internalization and symbolization in the United States. But, to expand on Zuo et al., we also focused our study on altruism-behavior tendencies and altruism emotions, which often interest narcissism researchers (Brunell et al. 2014; Hart et al. 2018a; Konrath et al. 2016). Hence, after completing indices of narcissism and self-esteem,



participants proceeded to complete measures of altruistic and non-altruistic (i.e., "public") helping tendencies, dispositional empathy and compassion, and moral identity internalization and symbolization. These prosocial-tendency variables are conceptually related. Indeed, altruistic helping is associated with empathy, compassion, and moral identity internalization (Aquino and Reed 2002; Carlo and Randall 2002). By contrast, public helping is designed to obtain recognition or material benefit and relates to moral identity symbolization (Winterich et al. 2013). Hence, an altruistic social orientation is marked by altruistic (vs. public) helping, *internalization* of a moral identity (Winterich et al. 2013), and chronically experiencing empathy and compassion.

Consistent with findings in Zuo et al. (2016), we anticipated that narcissism would relate to moral identity symbolization and public forms of helping. Indeed, work suggests that narcissistic individuals engage in public helping to project an exemplary image and accrue social benefits of claiming this image (e.g., Brunell et al. 2014; Konrath et al. 2016). Inconsistent with Zuo et al. (2016), we anticipated that narcissism would inversely relate to moral identity internalization and altruism-behavior tendencies. Prior work shows that narcissism inversely relates to altruism (Brunell et al. 2014; Konrath et al. 2016) and that narcissistic individuals define themselves as high in traits signifying an immoral identity (e.g., selfish, arrogant, aggressive, manipulative) and low in traits signifying a moral identity (kind, honest, dependable, gentle, sensitive; Carlson 2013; Carlson et al. 2011; Hart and Adams 2014; Hart et al. 2018a; Raskin and Terry 1988). But, more critically, we anticipated that inverse relations between narcissism and altruism-behavior tendency and moral identity internalization would diminish as self-esteem increased. This latter prediction, which we deemed our central hypothesis, is consistent with some theoretical assumptions that narcissism is more malignant and less moral when combined with low self-esteem (Back et al. 2013; Baumeister et al. 2000; Hart et al. 2018c; Kernberg 1975; Kohut 1972), but we realize that it contrasts with Zuo et al.'s (2016) findings.

Participants also completed a Big Five inventory. Zhou et al. (2015) have shown that narcissism relates to enhanced self-reported agreeableness in China, which contrasts with data showing that narcissism relates to reduced self-reported agreeableness in the US (Miller et al. 2011). If narcissism relates to different Big-Five traits in Eastern and Western cultures, perhaps the correlates of the narcissism-self-esteem synergy change across these cultures, too. To initiate better understanding of the synergy within the US, we report on how the synergy relates to the Big Five. Hart et al. (2018c), which used a US-adult sample, found the synergy related positively (albeit weakly) to both agreeableness and openness.

Method

Participants

An N=365 was required to detect an anticipated small interaction ($f^2=.03$; Hart et al., 2018) at a power of .8 with an alpha of .05. To account for incomplete data, we over-recruited this required sample size and had 422 participants from Amazon's Mechanical Turk (MTurk) participate in an online study in exchange for \$.50. We restricted participation to people residing in the United States. 17 participants failed to complete the study and were removed. Data were examined for spurious cases, and no participant contributed invariant responses across study measures. The final study sample (N=405; $M_{\rm age}=38.07$, $SD_{\rm age}=12.94$) was 77.8% Caucasian, 9.1% African American, 6.9% Asian, 3.7% Hispanic, 2.2% who identified as "other," and 0.2% Native American. Participants were predominantly female (62%). The median survey completion time was 10.88 min.

MTurk is an online crowd-sourcing platform for data collection that (a) supports the ability to collect large samples quickly and inexpensively (Miller et al. 2017); (b) yields data that is at least as high quality as other sample frames (Miller et al. 2017); and (c) allows researchers access to samples that are more diverse and less psychologically healthy than college samples (Miller et al. 2017).

Procedure and Materials

First, in a randomized order, participants completed the Narcissistic Personality Inventory (NPI; Raskin and Terry 1988) to index narcissism, the Rosenberg Self-Esteem Scale (RSES; Rosenberg 1965) to index trait self-esteem, and, for exploratory purposes, the Ten-Item Personality Inventory (TIPI; Gosling et al. 2003) to index the Big Five personality dimensions. The NPI had participants read 40 statement pairings and select with which statement they most agreed (e.g., "I can usually talk my way out of anything" versus "I try to accept the consequences of my behavior."). The RSES had participants rate (dis)agreement (1 = strongly disagree; 4 = strongly agree) with 10 statements (e.g., "I take a positive

¹ NPI scores can range from 0 to 40. In this sample, the NPI had a M=12.07, SD=8.00, and a range from 0 to 38. As a point of reference, note that the M and SD of the NPI in this sample is nearly identical to other published data using large adult MTurk samples (e.g., in Hart, Richardson, Tortoriello, & Tullett, 2017, based in N=542, M=12.5; SD=7.8; in Hart, Adams, & Tortoriello, 2017, based in N=401, M=12.5; SD=8.4; in Weiser 2015, based in N=1204, M=12.8; SD=7.6; in Zitek and Jordan 2016, M=11.1; SD=7.8, N=200, Study 1; M=12.3; SD=8.2, N=301, Study 1b; M=12.4; SD=8.5, N=402, Study 3). Ms on the NPI tend to be larger in college-student samples and are more variable across different universities but, in general, seem to be about 17 (see Twenge et al. 2008). In clinical samples, NPI Ms are considerably lower and are more comparable to those in adult MTurk samples (in Miller et al. 2009), M=12.9; SD=5.9; in Fossati et al. 2017, M=10.0; SD=6.4).



attitude toward myself."). The TIPI had participants rate (dis)agreement (1 = strongly disagree; 7 = strongly agree) with 10 descriptors each pertaining to one of the Big Five personality dimensions (e.g., "sympathetic, warm" and "critical, quarrelsome" [reverse-coded] to index agreeableness).

Next, in a randomized order, participants completed measures of prosocial tendencies which included: the empathic concern subscale from the Interpersonal Reactivity Index (IRI; Davis 1980, 1983) to index dispositional empathy; the compassion subscale from the Dispositional Positive Emotion Scales (DPES; Shiota et al. 2006) to index dispositional compassion; and the public helping and altruistic helping subscales from the revised Prosocial Tendencies Measure (PTM-R; Carlo et al. 2003) to index prosocial tendencies. The IRI empathic concern subscale had participants rate the extent (0 = does not describe me well,4 = describes me very well) to which seven statements described them (e.g., "I often have tender, concerned feelings for people less fortunate than me."). The DPES compassion subscale had participants rate (dis)agreement (1 = strongly disagree; 7 = strongly agree)with five self-descriptive statements (e.g., "Taking care of others gives me a warm feeling inside."). The PTM-R public helping subscale and altruistic helping subscale had participants rate the extent (1 = does not describe)me at all, 5 = describes me greatly) to which 10 statements described them (public helping: e.g., "I think that one of the best things about helping others is that it makes me look good;" altruistic helping: e.g., "I believe that donating goods or money works best when I get some benefit." [reverse-coded]).

Lastly, participants completed the Moral Identity Scale (MIS; Aguino and Reed 2002) used in Zuo et al. (2016) to index moral identity internalization and moral identity symbolization. The MIS had participants 1) read a 9-item list of characteristics indicative of a moral person (e.g., compassionate, honest, generous) and 2) rate (dis)agreement (1 = stronglydisagree, 5 = strongly agree) with 10 items pertaining to the embodiment of these characteristics. Half of the items averaged into a moral identity internalization subscale (e.g., "It would make me feel good to be a person who has these characteristics."), and half of the items averaged into a moral identity symbolization subscale (e.g., "I often wear clothes that identify me as having these characteristics."). After completing demographics (age, race, sex), participants were debriefed.² Data are available on the Open Science Framework website: https://osf.io/c6v7u/

² We also included a non-validated index on *self-sacrificial* behavior. Because self-sacrifice is clearly distinct from altruism or morality, it was not of central interest. Also, the index was not internally consistent (suggesting unreliability and questionable validity), and narcissism and self-esteem failed to interact to influence it.



Results

Data Reduction

To reduce the number of analyses, we collapsed indices of highly-overlapping constructs that we considered could be largely redundant. First, because dispositional empathic concern and compassion were highly correlated (r=.79), we rescaled the two indices (which were on different scales) to be on equivalent 100-point scales via a linear transformation suggested by Schumacker (2004, ch. 10; as cited in Schumacker 2016) and averaged them to create an index labeled *prosocial emotions*. Second, because public (i.e., self-ish) helping and altruistic helping indices were highly inversely correlated (r=-.81), we reverse-scored the public-helping index and averaged it with the altruistic-helping index to create an index labeled *altruism-behavior tendency*. Descriptive statistics and reliabilities for all study variables are presented in Table 1.

Main Analyses

Refer to Table 2 for bivariate correlations among study variables. We ran four hierarchical regression analyses with self-esteem (z-scored) and narcissism (z-scored) included at Step 1 and their interaction included at Step 2. These analyses are presented in Table 3. Narcissism related inversely to altruism-behavior tendency, moral identity internalization, and prosocial emotions, but self-esteem related positively to these outcomes. Narcissism and self-esteem related positively to moral identity symbolization. But, in the anticipated direction, relations between narcissism and altruism-behavior tendency (Fig. 1) and moral identity internalization (Fig. 2) were moderated by self-esteem, albeit such moderation effects were each small in size. As shown in the figures, as self-esteem increased, inverse relations between narcissism and these outcomes were attenuated. Of note, a similar interactive pattern was observed on prosocial emotions but failed to reach significance at $\alpha = .05$ (p = .16).

Auxiliary Analyses

At the bivariate level (Table 2), narcissism and selfesteem most sharply diverged in their correlations with agreeableness (negative for narcissism and positive for self-esteem) and conscientiousness (null for narcissism

³ For the interested reader, this collapsing of constructs had no implications on any of the conclusions we reach in the paper. Put differently, the individual constructs that contributed to the collapsed index had approximately similar relations to the predictors (narcissism, self-esteem, the interaction), as reported in the main analyses.

 Table 1
 Descriptives for study variables

	M	SD	ICR
NPI	12.07	8.00	0.90 _C
RSES	2.99	0.67	$0.93_{\rm C}$
Altruism-Behavior Tendency	4.07	0.92	$0.92_{\rm C}$
Public helping	1.83	1.03	$0.91_{\rm C}$
Altruistic helping	3.98	0.91	$0.84_{\rm C}$
Moral Identity Internalization	4.20	0.78	$0.80_{\rm C}$
Moral Identity Symbolization	3.08	0.99	$0.87_{\rm C}$
Prosocial Emotions	70.46	19.77	$0.93_{\rm C}$
Empathic Concern	2.79	0.84	$0.88_{\rm C}$
Compassion	5.42	1.15	$0.92_{\rm C}$
Extraversion	3.58	1.60	0.70_{SB}
Agreeableness	5.18	1.33	0.53_{SB}
Conscientiousness	5.48	1.31	0.68_{SB}
Neuroticism	3.23	1.53	0.75_{SB}
Openness	5.02	1.25	0.42_{SB}

NPI Narcissistic Personality Inventory, RSES Rosenberg Self-esteem Scale, ICR internal consistency reliability, $_C$ Cronbach's alpha, $_{SB}$ Spearman-Brown coefficient

and positive for self-esteem). Narcissism and self-esteem, however, united on low neuroticism, high openness, and high extraversion. We also ran five hierarchical regression analyses with self-esteem (z-scored) and narcissism (z-scored) included at Step 1 and their interaction included at Step 2 (see Table 4). Notably, the synergy related positively to openness, meaning that narcissism and openness were more strongly positively related at higher levels of self-esteem.

Discussion

As anticipated, narcissism related inversely to altruismbehavior tendency and moral identity internalization. These effects contrast with those in Zuo et al. (2016), but they cohere with other data showing that narcissism relates inversely to altruistic helping (Brunell et al. 2014; Hart et al. 2018b; Konrath et al. 2016) and reduced self-reported possession of moral traits (gentle, caring, honest) and enhanced selfreported possession of rather immoral traits (dishonest, rude, arrogant, selfish; Carlson et al. 2011; Hart and Adams 2014; Hart et al. 2018a; Raskin and Terry 1988). Also, as anticipated, narcissism related positively to moral identity symbolization. Similar effects were obtained by Zuo et al., (2016); this effect accords with theories and evidence suggesting that narcissistic individuals manage their impressions to others by self-presenting socially-desirable identities (e.g., moral, charming, kind) that are not privately held but might win them desired outcomes (Hart et al. 2017a). In sum, our evidence supports other work suggesting that narcissistic individuals wish to appear moral to others but privately devalue moral-identity traits and possess suppressed tendencies for altruistic helping.

But, as anticipated, some narcissism effects on an altruistic orientation were moderated by self-esteem. Specifically, as self-esteem increased, narcissism became more weakly correlated to low altruism-behavior tendency and moral identity internalization. Although these interactive patterns contradict the interactive patterns and ideas reported in Zuo et al. (2016), the patterns are sensible. High self-esteem likely orients narcissistic superiority striving toward admirable (vs. antagonistic) routes of social interaction (Back et al. 2013; Hart et al. 2018c). This can happen for a variety of non-mutually

Table 2 Bivariate correlations between final study variables

	1	2	3	4	5	6	7	8	9	10
1. NPI										
2. RSES	.14**									
3. Altruism-Behavior Tendency	47**	.14**								
4. Moral Identity Internalization	28**	.22**	.44**							
5. Moral Identity Symbolization	.24**	.21**	25**	.17**						
6. Prosocial Emotions	20**	.26**	.33**	.60**	.32**					
7. Extraversion	.38**	.26**	06	.00	.18**	.13**				
8. Agreeableness	19**	.38**	.25**	.38**	.16**	.55**	.20**			
9. Conscientiousness	01	.44**	.20**	.33**	.15**	.29**	.12*	.42**		
10. Neuroticism	.13*	.50**	.09	.12*	.16**	.17**	.28**	.40**	.42**	
11. Openness	.13**	.31**	.15**	.17**	0.04	.25**	.32**	.29**	.18**	.26**

NPI Narcissistic Personality Inventory, RSES Rosenberg Self-esteem Scale



^{*}p < .05, p* < .01; two-tailed

Table 3 Regression Analyses: Narcissism × Self-Esteem Interaction Predicting Prosocial Outcomes

Outcome	b	SE	p	ΔR^2
Altruism-Behavior Te	endency (factor	r score)		
Step 1				.266
NPI	46	0.04	< .001	
RSES	.19	0.04	< .001	
Step 2				.011
$NPI \times RSES$.10	0.04	.012	
Moral Identity Interna	lization			
Step 1				.147
NPI	25	0.04	< .001	
RSES	.21	0.04	< .001	
Step 2				.014
$NPI \times RSES$.09	0.04	.009	
Moral Identity Symbo	olization			
Step 1				.087
NPI	.21	0.05	< .001	
RSES	.17	0.05	< .001	
Step 2				.000
$NPI \times RSES$	01	0.05	.779	
Prosocial Emotions				
Step 1				.126
NPI	-4.89	0.93	< .001	
RSES	5.80	0.93	< .001	
Step 2				.004
$NPI \times RSES$	1.25	0.90	.165	

Step 1 of the model reports main effects; Step 2 of the model reports the interaction effect

 $N\!P\!I$ Narcissistic Personality Inventory, $R\!S\!E\!S$ Rosenberg Self-esteem Scale

exclusive reasons. One possibility is that high self-esteem is indicative of a chronic communal orientation, which directs narcissistic superiority striving in a way similar to the temporary priming of a communal orientation (Finkel et al. 2009). Another possibility is that low self-esteem acts to constrain superiority strivings to harming others (to get ahead; Hart et al., 2018), so enhancements in self-esteem act to free a narcissistic person to behave less antagonistically (i.e., more prosocially). Yet another possibility is that low self-esteem creates pathological self-focused attention (Ingram 1990) and instills negative views toward others (Kernberg 1975). so enhancements in self-esteem act to free narcissistic people to consider non-selfish values and help to care for others. Regardless, the findings are consistent with the notion that trait self-esteem influences how narcissism relates to prosocial constructs. This idea is important because it suggests that expressions of narcissism are malleable and that narcissism need not necessarily be highly socially toxic. Future studies might use experimental methods to examine how self-esteem orients narcissistic individuals toward a moral and altruistic orientation.

Notably, we found no evidence that self-esteem moderates relations between narcissism and moral identity *symbolization*. Put differently, narcissistic individuals with high and low self-esteem seem to care an equal amount about projecting a virtuous image to others. Such findings seemingly contradict the theory that high self-esteem suppresses narcissistic goals to be admired in public (Zuo et al. 2016). Indeed, it seems unlikely that high self-esteem would suppress narcissistic individuals' goals for admiration or, more broadly, self-presentation motivation. That is, high self-esteem could just as likely prompt more lofty goals to impress others (Campbell and Foster 2007) and, in turn, enhance impression motivation. Regardless, we found no evidence

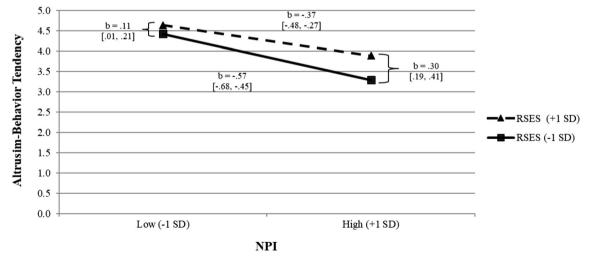


Fig. 1 Interactive effects between narcissism and self-esteem on altruism behavioral tendency. 95% CIs corresponding to each simple slope are bracketed. NPI = Narcissistic Personality Inventory; RSES = Rosenberg Self-esteem Scale



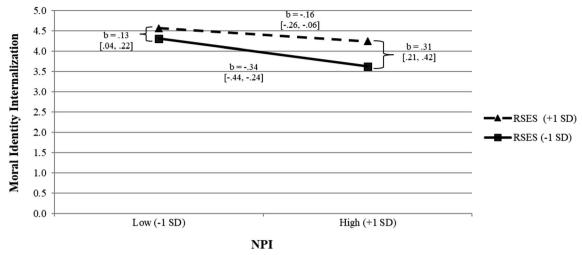


Fig. 2 Interactive effects between narcissism and self-esteem on moral identity internalization. 95% CIs corresponding to each simple slope are bracketed. NPI = Narcissistic Personality Inventory; RSES = Rosenberg Self-esteem Scale

that narcissism and self-esteem synergize to influence moral identity symbolization, albeit this null effect cannot prove the absence of a true effect.

We presently find it difficult to conclusively reconcile discrepancies between our data and Zuo et al.'s (2016). Presumably, such discrepancies might reflect cultural differences and suggest that expressions of narcissism and the narcissism-self-esteem synergy are bounded by cultural context. Indeed, Zuo et al. sampled adolescents living in an Eastern culture (China), and we sampled adults living in a Western culture (US). Zhou et al. (2015) have shown that narcissism correlates positively with self-reported agreeableness in China; however, in the US, narcissism and selfreported agreeableness tend to be inversely related, as was found here. Perhaps the correlates of the narcissism-self-esteem synergy change across these cultures, too. To begin the process of comparison, we showed that the synergy likely has weak relations to openness (see also Hart et al. 2018c). We hope future research can further scrutinize this topic of cultural differences.

Although the study has numerous strengths such as involving a large sample and using an array of outcome variables, the present work has notable limitations. For example, the study relied on self-report methods and is, therefore, subject to the shortcomings of this method (e.g., social desirability; judgment errors). Future research might address this shortcoming by including observer ratings of perceived moral

identity and perceived altruism behavior. Indeed, although narcissistic individuals seem to generally have insight into their traits, they can sometimes over-estimate their standing on traits they perceive as desirable (Grijalva and Zhang 2016; John and Robins 1994). Hence, it will be important for future studies to include behavioral indicators of these constructs to understand whether the present effects are indicative of reporting bias on behalf of participants. Also, although we relied on a large sample, we strongly advise caution of generalizing the present findings to different sample frames (e.g., children; people from different cultures). Indeed, as we noted, narcissism indices appear to function differently in Eastern vs. Western cultures, so our results might lack broad applicability (c.f. Zuo et al. 2016). Also, one should be wary to apply our results to samples in the US, generally. Indeed, our sample was predominantly Caucasian, and although MTurk samples are more diverse than college samples on various dimensions, they still represent a restricted sample of the US population (Miller et al. 2017). That said, the present findings do cohere with a vast amount of data on narcissism and altruism tendencies and some accounts of the narcissism-self-esteem synergy. Lastly, the present work was limited to the study of grandiose narcissism and did not consider vulnerable narcissism. Vulnerable narcissism is a more pathological variant of narcissism and is associated with helplessness, feelings of emptiness, and contingent self-esteem (Pincus and Roche 2011). Future work might include measures of vulnerable narcissism to better understand whether the present effects generalize to alternative conceptions of narcissism.

Limitations notwithstanding, the present findings add to the growing body of work relating narcissism to "bright" outcomes. Although narcissistic individuals might be deficient in altruism and fail to internalize a moral identity, these deficiencies are more marked in narcissistic individuals with lower



⁴ It seems unlikely that discrepancies between our findings and Zuo et al.'s (2016) can be attributed to using different self-esteem or narcissism indices. Indeed, Zuo et al. (2016) used the RSES to index self-esteem and the SD-3 narcissism subscale to index narcissism (Jones and Paulhus 2014). SD-3 narcissism correlates nearly perfectly with the NPI at .87 (Jones and Paulhus 2014).

Table 4 Auxiliary Regression Analyses: Narcissism × Self-Esteem Interaction Predicting Big Five Traits

Outcome	b	SE	p	ΔR^2
Extraversion				
Step 1				.184
NPI	.56	0.07	< .001	
RSES	.33	0.07	< .001	
Step 2				.004
$NPI \times RSES$	10	0.07	.144	
Agreeableness				
Step 1				.204
NPI	34	0.06	< .001	
RSES	.55	0.06	< .001	
Step 2				.003
$NPI \times RSES$.07	0.06	.256	
Conscientiousness				
Step 1				.201
NPI	10	0.06	.085	
RSES	.59	0.06	< .001	
Step 2				.007
$NPI \times RSES$.11	0.06	.064	
Neuroticism				
Step 1				.249
NPI	.09	0.07	.194	
RSES	.75	0.07	< .001	
Step 2				.002
$NPI \times RSES$	07	0.07	.268	
Openness				
Step 1				.105
NPI	.11	0.06	.067	
RSES	.37	0.06	< .001	
Step 2				.009
$NPI \times RSES$.12	0.06	.042	

Step 1 of the model reports main effects; Step 2 of the model reports the interaction effect

NPI Narcissistic Personality Inventory, RSES Rosenberg Self-esteem Scale

self-esteem. In terms of theoretical implications, the present findings advance the notion that narcissism and self-esteem should be understood synergistically to precisely predict aspects of social identity and behavior tendencies (albeit the nature of the interaction might change across cultures). In terms of applied implications, the findings suggest that relations between narcissism and reduced prosocial orientations are malleable, so it is possible that interventions could be devised to orient narcissistic individuals toward more moral and altruistic responding.



Compliance with Ethical Standards

Conflict of Interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

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1408 Curr Psychol (2019) 38:1399–1408

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