

# The Relationship Between Narcissism and Friendship Qualities in Adolescents: Gender as a Moderator

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**Abstract** The present study explored the gender characteristics of narcissism as well as its relationship with friendship quality dimensions (i.e., trust & support, validation, and disclosure & communication) among 485 (197 boys and 288 girls) junior high and high school adolescents in a Southwest province in China. Significant gender differences were found, such that boys were more narcissistic than girls, while girls reported higher levels of friendship qualities, including validation and disclosure & communication. To examine gender moderations in the relationships between narcissism and friendship quality dimensions, multiple-group (by boys and girls) structural equation modeling were conducted. The results revealed the significant gender moderations in the associations between narcissism and friendship quality dimensions, while controlling for adolescent grade level. Specifically, narcissism significantly and positively related to the three aspects of friendship qualities (i.e., trust & support, validation, and disclosure & communication) among boys, but was not related to friendship quality

among girls. Discussions are provided for an understanding of the current findings in the Chinese cultural context.

**Keywords** Narcissism · Friendship quality · Gender difference · Adolescents

## Introduction

Narcissism as a normal personality trait has received much attention in recent decades. Distinctive features of narcissism include grandiose self concept, a sense of superiority and entitlement, and interpersonal exploitativeness (Morf and Rhodewalt 2001). There is extensive literature on the relationship between narcissism and psychological well-being (Sedikides et al. 2004) and aggression (Bushman et al. 2009) that have been established among U.S. adults. The complex nature of narcissism makes it especially interesting to investigate the interpersonal relationships of narcissistic individuals. It has been suggested that U.S. college students with high scores on trait narcissism are charming (Back et al. 2010), but not good at long term relationships (Paulhus 1998). Previous studies examining narcissism and social relationships were mostly conducted in the realm of general relationships and romantic relationships among the U.S. population (Paulhus 1998; Campbell et al. 2002). Moreover, although we have gained increasing knowledge about narcissism among college students and older adults in Western countries, little is known about younger narcissistic individuals' social relationships, especially in a collectivistic culture. As a type of social relationship prominent during adolescence, friendship is highly related to adolescents' adjustment (Hartup 1996). Therefore, investigating the relationship between narcissism and aspects of friendship quality (e.g., companionship, trust & support, disclosure & communication and validation) may have developmental significance

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for adolescents and enrich our knowledge about the function of narcissism in adolescents' interpersonal relationships.

The present study aims to explore the relationship between narcissism and different aspects of friendship quality during adolescence as well as compare these relationships between Chinese adolescent boys and girls. Since friendship quality consists of different dimensions, the present study would examine companionship (e.g., playing together), trust & support (e.g., caring about feelings, giving advice), disclosure & communication (e.g., telling secrets to each other), validation (e.g., thinking each other important and special), and conflict and betrayal (e.g., quarreling). Furthermore, although many studies have revealed gender differences in narcissism with participants from different countries (e.g. Foster et al. 2003; Ryan et al. 2008), few have addressed the important question that whether narcissistic individuals' interpersonal relationships are different across gender. Aiming to shed light on this question, our research explores gender moderation in the associations between narcissism and friendship qualities among Chinese adolescents.

#### Narcissism in Childhood and Adolescence

A few studies have investigated gender and age differences on narcissism during childhood and adolescence, as well as psychological adjustment of narcissistic adolescents. These studies indicate that males are more narcissistic than females among adults (Foster et al. 2003; Morf and Rhodewalt 2001) and among U.S. primary school children (Thomaes et al. 2008). Furthermore, gender is an important factor in the expression of narcissism. For instance, gender was found to moderate the relationship between narcissism and problem behaviors such that it was significantly linked to relational aggression among U.S. adolescent (Grade 5 to Grade 9) girls, but not boys (Marsee et al. 2005). These gender differences may suggest that girls' adjustment is more negatively impacted by narcissism, which is partly due to the gender norm regarding narcissistic behaviors. Narcissistic behaviors may be more socially acceptable and adaptive for males than for females. However, it is yet to be determined whether the same gender differences in the functioning of narcissism can be extended to the interpersonal relationships among adolescents.

In addition to gender differences in narcissism, a few studies have also investigated the age-related changes in narcissism and the findings are often inconsistent depending on the age range of the samples. For instance, Forster and his colleagues (2003) found that narcissism declined in older age among a sample with ages ranging from 8 to 83. A recent longitudinal study with U.S. participants, on the other hand, showed that narcissism increases from age 14 to 18 (Carlson and Gjerde 2009). Also, some studies have found no age-related changes in narcissism among 16 to

18 year old U.S. adolescents (e.g., Barry et al. 2007). Given this findings, this study will further examine the age differences in narcissism as well as have a control for age in the examination of the associations between narcissism and friendship quality dimensions.

When investigating the relationship between narcissism and adjustment, recent research has found associations between narcissism and problem behaviors in childhood and adolescence. In comparison to those who are low on narcissism, U.S. children and adolescents with high narcissism tend to be more aggressive (Thomaes et al. 2008; Fossati et al. 2010) and have more conduct problems (Barry et al. 2009; Bukowski et al. 2009). On the other hand, studies have also found positive associations between narcissism and adjustment in late adolescence as those found in adulthood (Sedikides et al. 2004). For instance, Lapsley and Aalsma (2006) found that narcissism was positively related to Canadian adolescents' self-worth, mastery coping, and superior adjustment, but negatively associated with depression and suicidal ideation, which suggest some adaptive significance of narcissism during adolescence.

#### Narcissism and Interpersonal Relationships

Research on narcissism and interpersonal relationships reveals interesting but inconsistent findings. Numerous studies have indicated that narcissistic individuals have difficulties with interpersonal relationships. Narcissism is inversely related to self-reported empathy (Bushman et al. 2003) and forgiveness (Eaton et al. 2006) as revealed in U.S. populations. Additionally, narcissistic U.S. individuals are aggressive (Bushman et al. 2009) and are likely to be disliked by others in the long run (Paulhus 1998). Even in close relationships (e.g., romantic relationship), narcissism is related to certain deficiencies (Campbell et al. 2002). On the other hand, positive functions of narcissism in social relationships have also been found. For example, narcissistic U.S. college students are attractive to observers at first sight because of characteristics such as fancier clothing, more charming facial expressions, more self-assured body movements, and more verbal humor (Back et al. 2010).

Theories have been proposed to reconcile the paradox of narcissistic individuals' social relationships. According to the dynamic self-regulatory processing model (Morf and Rhodewalt 2001), narcissistic individuals try to regulate their behavior and operate on their social environments to create and maintain their positive self-view. On one hand, they might regulate their behavior attractively to obtain positive feedback from others that enhances their self-worth. On the other hand, since these individuals' primary goal is to maintain self-worth and not to obtain closeness to others, their selfishness and devaluing of others might bring difficulties to their social relationships.

Although many studies have been conducted to investigate the association of narcissism and interpersonal relationship, not many studies have explored narcissistic the close interpersonal relationships, such as friendship, among adolescents. Only one study found that narcissistic U.S. college students prefer social goals promoting positive outcomes in friendship (e.g., having fun; Foster et al. 2009). Given the importance of friendship in adolescents' development (Hartup 1996), exploring the associations between narcissism and adolescents' friendship quality can help us understand how narcissism functions to influence interpersonal relationship development. Such examinations also allow us to examine how previous theoretic models may be applied to a different type of social relationship at a younger age.

### Narcissism in the Chinese Culture

In the present literature, our knowledge about narcissism and its relation to social relationships primarily comes from studies conducted in Western cultures. Some research suggests that people in individualistic cultures are more narcissistic than those in collectivistic cultures (Foster et al. 2003). Although within cultural variations exist, China is a typical collectivistic country (Oyserman et al. 2002). The traditional cultural values suggest that Chinese are modest and downplay the significance of the self. However, inconsistent findings also exist in the literature suggesting that Chinese are more narcissistic than Americans (Fukunishi et al. 1996; Kwan et al. 2009). Song and Li (2010) found that Chinese narcissists are usually described as having a high sense of superiority, self-love and authority. These views about narcissism are similar to those found in Western cultures. In addition, studies have revealed that narcissism is positively related to self-esteem and aggression, and negatively correlated with anxiety among Chinese college students (Zhou et al. 2009; Li and Gao 2011). These results are consistent with findings in Western samples (Sedikides et al. 2004; Bushman et al. 2009).

Limited research has investigated whether findings about narcissism in interpersonal relationships found in Western countries can be extended to narcissistic individuals in collectivistic countries. However, many previous studies have suggested that positive self-view is associated with positive peer relationships among both Western (Parker et al. 2005) and Chinese (Lai et al. 2006) adolescents. In addition, some empirical evidence has revealed that narcissists in collectivistic cultures show similar interpersonal relationships with those in Western countries (Tanchotsrinon et al. 2007). With a sample from Thailand, Tanchotsrinon et al. (2007) found similar results to those reported in Western countries: Narcissism still predicted attraction to targets who offered the potential for self-enhancement. However, both narcissists and non-narcissists in their study showed a higher overall attraction to caring targets, which was inconsistent with the results found

in Western cultures. This finding may suggest that, although findings from Western countries may be extended to narcissistic individuals in collectivistic countries, cultural context might influence the functioning of narcissism in interpersonal relationships. According to the dynamic self-regulatory processing model of narcissism (Morf and Rhodewalt 2001), the self-concept of narcissistic individuals is grandiose but vulnerable. Narcissists often use special self-regulatory strategies to maintain their grandiose views of themselves. In individualistic cultures, people value agent traits, which may be an important source for Western self-view. Thus, narcissistic individuals in Western cultures may perceive themselves as attractive, intelligent, extroverted, and successful in order to maintain positive self concepts. However, in China, the quality of one's social relationships is a strong determinant of one's self-worth and well-being (Bond and Wang 1983). It is possible that narcissistic individuals in Eastern culture might value harmonious relationships with others in order to improve their self-view. Therefore, in collectivistic countries, such as China, narcissism might be associated with quality interpersonal relationships, such as friendship.

### Friendship Quality in Adolescence

A critical interpersonal relationship in adolescents' lives is friendship, which is closely related to their social and emotional development. Friendship includes many aspects such as having friends, the identity of one's friends, and the quality of the friendships (Hartup 1996). Among these aspects, friendship quality is particularly important (Berndt 2002). Most theorists perceive friendship quality as multidimensional, addressing both positive (e.g., companionship, trust & support, disclosure & communication and validation) and negative (e.g., conflict and betrayal) aspects of the relationship (Parker and Asher 1993). Among different aspects of friendship quality, only the positive aspects can predict adjustment of U.S. adolescents (Demir and Urberg 2004). High-quality friendships may enhance adolescents' self-esteem and psychological health (Berndt and Keefe 1995). Moreover, as shown by research among U.S. populations, friendship quality can buffer against adjustment problems when a child is not well accepted or has fewer friends (Waldrip et al. 2008), and moderates the effect of parenting on children's internalizing symptoms (Gaertner et al. 2010).

Several research studies have revealed age-related changes and gender differences in adolescents' friendship qualities. From middle to late adolescence, friendship qualities improve among U.S. adolescents (Way and Greene 2006). Cross-cultural similarities have been found on gender differences in friendship. When interacting with a friend, girls' interactions are more positive than boys among Western (Youngblade and Belsky 1992) and Chinese (Zou et al. 1998) adolescents. Furthermore, researchers have also

found gender differences in the relations between friendship quality and behaviors among U.S. adolescents (e.g. Fanti et al. 2009). Research among Chinese primary school students also shows that relational regression was positively related to girls' friendship qualities, while negatively related to boys' friendship qualities (Wei et al. 2011). These findings suggest that behaviors in keeping with children's gender role may be associated with positive friendship quality.

In addition to the gender and age related findings, previous research has examined the contributing factors for friendship quality, such as attachment styles, aggressive and prosocial behaviors (e.g., Youngblade and Belsky 1992; Cillessen et al. 2005; Lansford et al. 2006). Despite advances in research, little is known about how personality traits, such as narcissism, may relate to adolescents' friendship quality.

### Present Study

This study aims to address how narcissism and friendship qualities are related during adolescence as well as how these associations vary by adolescents' gender using a sample of Chinese adolescents. We aim to explore the relationships between narcissism and different aspects of friendship quality, because narcissism may differently relate to various aspects of friendship quality. Previous studies involving U.S. adults have found that narcissists are motivated to get positive outcomes from friendship (Foster et al. 2009). These findings suggest that narcissism may be associated with positive friendship quality. Drawing on the dynamic self-regulatory processing model of narcissism (Morf and Rhodewalt 2001), narcissistic individuals' primary motivation is to create or maintain a grandiose self-concept or a positive self-view. Having quality friendship may help adolescents achieve this goal by validating their self-worth. Because validation from friends is a way to enhance one's self-worth, we expect narcissism to positively relate to the validation aspect of friendship quality. Additionally, because having harmonious and close social relationships is important to the self-concepts of Chinese (Bond and Wang 1983), satisfactory friendship qualities such as those reflected by the trust & support, disclosure & communication, and companion & entertainment dimensions, may especially improve the self-view of Chinese adolescents who endorse narcissism. Therefore, it is predicted that narcissism will be positively linked to these aspects of friendship qualities among Chinese adolescents. On the other hand, the negative dimension of friendship quality, conflict and betrayal, would be likely to negatively relate to narcissism.

Furthermore, the relationships between narcissism and friendship qualities may vary as a function of adolescents' gender. Illuminated by previous research (Foster et al. 2003; Thomaes et al. 2008), we first expect that narcissism is more normative in Chinese adolescent boys such that they will

report higher narcissism than girls. Furthermore, research on gender socialization suggests that social behaviors in accordance with gender role are associated with positive psychological adjustment (Grotjeter and Crick 1996). Cross-cultural similarities in this view have also been observed among Chinese children (Wei et al. 2011). Since some components of narcissism (e.g., uniqueness and authority) are also considered as masculine (Bem 1975; Zhang et al. 2001), narcissistic behaviors may be more socially acceptable and adaptive for males than for females. Given these theoretical and empirical considerations, we expect that the association between narcissism and positive friendship qualities will be stronger for boys than for girls in the current sample of Chinese adolescents. Furthermore, given that age may be related to narcissism (Carlson and Gjerde 2009; Foster et al. 2003), it is necessary to control for age in the association analysis to obtain a clear delineation of relationships between narcissism and friendship quality dimensions for Chinese adolescent boys and girls.

## Method

### Participants

Participants were 485 (197 boys and 288 girls) students from a Southwest province in China. Specifically, there were 228 students from Grade 1 to Grade 3 in junior high school, aged from 12 to 16 years and 257 students from Grade 1 to Grade 3 in high school, aged from 16 to 19 years old. The mean age of these students was 15.91 ( $SD=1.92$ ). All the participants were recruited from one secondary school. After obtaining permission from the school and parents, research assistants surveyed the participating students in one class session in the students' classrooms. Most of these students came from low to middle class families. About 72 % of these students' fathers and 78 % of their mothers had an education level of junior high school or below.

### Measures

#### *Narcissism*

Narcissistic Personality Inventory for Chinese (NPIC; Zhou et al. 2009) was used in the present study. This inventory was developed based on the Narcissistic Personality Inventory (Raskin and Terry 1988; Emmons 1984, 1987) and validated in China. This inventory showed satisfactory reliability and validity among Chinese (Zhou et al. 2009). Participants rated on a 6-point Likert scale ranging from 1 (not at all true) to 6 (completely true). The higher scores on



this inventory indicate higher levels of narcissism. The original inventory consists of 34 items, and 2 items (“I am eager to power/我对权力有强烈的欲望”, “I seldom depend on others/我很少依靠别人来完成事情”) were excluded due to low correlations with the total scale score (for the remaining 32 items, see Appendix I). The Cronbach’s alpha coefficient for the overall inventory was .92.

### Friendship Quality

The Chinese version of the Friendships Quality Questionnaire (FQQC; Zou et al. 1998) was used in the present study. Adolescents mentioned a best same-gender friend in their class and then rated on a 5-point Likert scale (1 = not true at all; 5 = completely true) for how true a particular quality was for their friendship with this specific best same-gender peer. This questionnaire was adapted from the widely used measure, Friendships Quality Questionnaire (Parker and Asher 1993) among Chinese adolescents (Zou et al. 1998). This questionnaire originally includes five subscales: trust & support, companion & entertainment, validation, disclosure & communication, and conflict & betray. To validate this questionnaire among Chinese adolescents, Zou et al. had two psychology graduate students translate the original 40-item English version questionnaire into Chinese; then, asked an English major student to translate the Chinese version back to English. Seven hundred and sixty three adolescents from Grade one in junior high school to Grade three in high school finished the Chinese version FQQ. Exploratory factor analysis extracted five factors. The alpha coefficients of the five factors were .88, .73, .80, .80, and .67 respectively in the scale validation study. In addition, this friendship quality measured could predict adolescents’ loneliness (Zou et al.

1998). Above information suggested that the FQQC had satisfactory reliability and validity.

In the present study, two of the subscales (i.e., companion & entertainment and conflict & betrayal) showed low reliabilities ( $\alpha < .65$ ) and thus these two dimensions were excluded from subsequent analysis. The final questionnaire included 16 items to measure the three dimensions of friendship, trust & support, validation, and disclosure & communication (see Appendix II). A CFA indicated that the measurement of this 16-item scale was adequate ( $\chi^2/df=2.32$ ,  $RMSEA=.05$ ,  $CFI=.97$ ,  $NFI=.95$ ,  $NNFI=.97$ ). The standardized factor loadings of items on the three dimensions of friendship quality ranged from .34 to .69. The Cronbach’s alphas of the trust & support, validation, and disclosure & communication friendship quality dimensions were .72, .67 and .69, respectively.

## Results

### Descriptive Analysis

To examine grade and gender differences in participants’ narcissism and friendship quality dimensions, a MANOVA was conducted with students’ adolescent grade level and gender as independent variables and narcissism as well as the three domains of friendship quality as dependent variables. Table 1 shows the means and standard deviations for narcissism and subscales of friendship quality for boys and girls in each grade.

Significant multivariate effects were observed for gender,  $Wilks' \Lambda = .89$ ,  $F(4, 467) = 15.15$ ,  $p < .001$ ,  $\eta = .12$ , and for grade,  $Wilks' \Lambda = .90$ ,  $F(15, 1550) = 2.37$ ,  $p < .001$ ,  $\eta = .03$ . The interaction of gender and grade was not

**Table 1** Means and standard deviations of narcissism and friendship quality dimensions by gender and grade

		Narcissism		Trust & Support		Validation		Disclosure & Communication	
		M	SD	M	SD	M	SD	M	SD
Boys	JH1	3.71	.71	3.66	.77	3.44	.62	3.48	.83
	JH2	3.73	.84	3.95	.74	3.48	.68	3.64	.79
	JH3	3.45	.69	3.81	.72	3.53	.74	3.64	.72
	H1	3.48	.79	4.00	.65	3.66	.62	3.72	.84
	H2	3.63	.95	4.00	.53	3.68	.78	3.96	.62
	H3	3.85	.82	4.01	.58	3.77	.67	3.87	.62
Girls	JH1	3.38	.68	3.88	.77	3.60	.78	3.91	.75
	JH2	3.55	.82	3.93	.62	3.55	.63	3.78	.68
	JH3	3.50	.83	4.07	.56	3.68	.56	4.28	.53
	H1	3.43	.67	4.18	.64	4.09	.62	4.30	.55
	H2	3.45	.77	4.20	.58	3.95	.54	4.27	.59
	H3	3.43	.74	3.87	.66	3.69	.61	4.14	.56

JH junior high school; H high school; trust & support, validation and disclosure & communication are three dimensions of friendship quality. Scores of narcissism ranged from 1 to 6; Scores of trust, validation and disclosure ranged from 1 to 5  
\* $p < .05$ , \*\* $p < .01$  \*\*\* $p < .001$

significant, *Wilks' Lambda* = .96,  $F(20, 1550) = 1.12, p = .32, \eta = .01$ . Examination of the univariate effects revealed that boys ( $M = 3.65, SD = .81$ ) were more narcissistic than girls ( $M = 3.45, SD = .75$ ),  $F(1, 470) = 7.16, p < .01, \eta = .02$ . In addition, compared to adolescent boys, adolescent girls reported higher levels of validation ( $M = 3.76, SD = .65$  for females;  $M = 3.61, SD = .69$  for males),  $F(1, 473) = 7.14, p < .01$ , and disclosure & communication ( $M = 4.12, SD = .64$  for females;  $M = 3.73, SD = .74$  for males),  $F(1, 473) = 39.87, p < .001$ . No significant gender differences were found in trust & support. Furthermore, examination of the univariate effects revealed significant grade differences on all three domains of friendship quality,  $F(5, 470) = 2.69, p < .05$  for trust and support,  $F(5, 470) = 3.98, p < .01$  for validation, and  $F(5, 470) = 4.99, p < .001$  for disclosure & communication. Tukey's HSD analysis indicated that students in high school generally reported higher friendship qualities than those in junior high school (see Table 1). No age difference was found for narcissism,  $F(5, 470) = .89, p = .66$ .

### The Relationship Between Narcissism and Friendship Quality

We hypothesized that narcissism would be positively related to friendship quality dimensions and these associations were expected to be stronger for boys than girls. Consistent with our hypothesis, narcissism was positively correlated with the all three friendship quality dimensions for boys (see Table 2). In contrast, there was no significant correlation between narcissism and girls' friendship quality dimensions.

To examine gender moderations in the relationships between narcissism and friendship quality dimensions while having a control of the correlated dependent variables (i.e., friendship quality dimensions), multiple-group (by boys and girls) structural equation modeling were conducted using LISREL. We also controlled for participants' grade to clearly delineate the associations between narcissism and friendship quality dimensions. To specify the model, the items in the friendship quality

**Table 2** Correlations between narcissism and friendship quality dimensions by gender

	1	2	3	4
1. Narcissism	–	.27***	.37***	.31***
2. Trust & Support	–.03	–	.61***	.67***
3. Validation	.11	.63***	–	.52***
4. Disclosure & Communication	.01	.63***	.60***	–

Correlations for boys and girls are above and below the diagonal, respectively

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

subscales served as indicators for each friendship quality latent construct. Due to the large amount of items for narcissism, three parcels were created to form the indicators of the narcissism latent construct. Measurement invariance was established before the model comparison (between M1 and M2),  $\Delta\chi^2(15) = 15.41, p > .05$ . To examine the gender moderations in the associations, model comparisons were conducted on each path from narcissism to friendship quality. As Table 3 shows, all structural models fit the data adequately.

As Figure 1 shows, narcissism was significantly related to all three aspects of friendship quality only for boys ( $\beta = .35, p < .01$  for trust & support;  $\beta = .49, p < .01$  for validation;  $\beta = .37, p < .01$  for disclosure & communication). The paths from narcissism to girls' friendship qualities were not significant. Model comparisons showed that the path coefficients from narcissism to each aspect of friendship quality were significantly different between boys and girls,  $\Delta\chi^2(1) = 6.95, p < .01$  for trust & support (between M2 and M3),  $\Delta\chi^2(1) = 6.42, p < .01$  for validation (between M2 and M4), and  $\Delta\chi^2(1) = 9.90, p < .01$  for disclosure & communication (between M2 and M5).

### Discussion

The present study examined the associations between narcissism and aspects of friendship quality as well as the gender moderations in these relationships among Chinese adolescents. We found significant gender moderations such that narcissism was positively associated with friendship qualities only among Chinese adolescent boys. These findings highlight the gender-dependent functioning of narcissism in adolescents' social adjustment. The cultural implications of the current findings are provided.

### Narcissism and Friendship Qualities

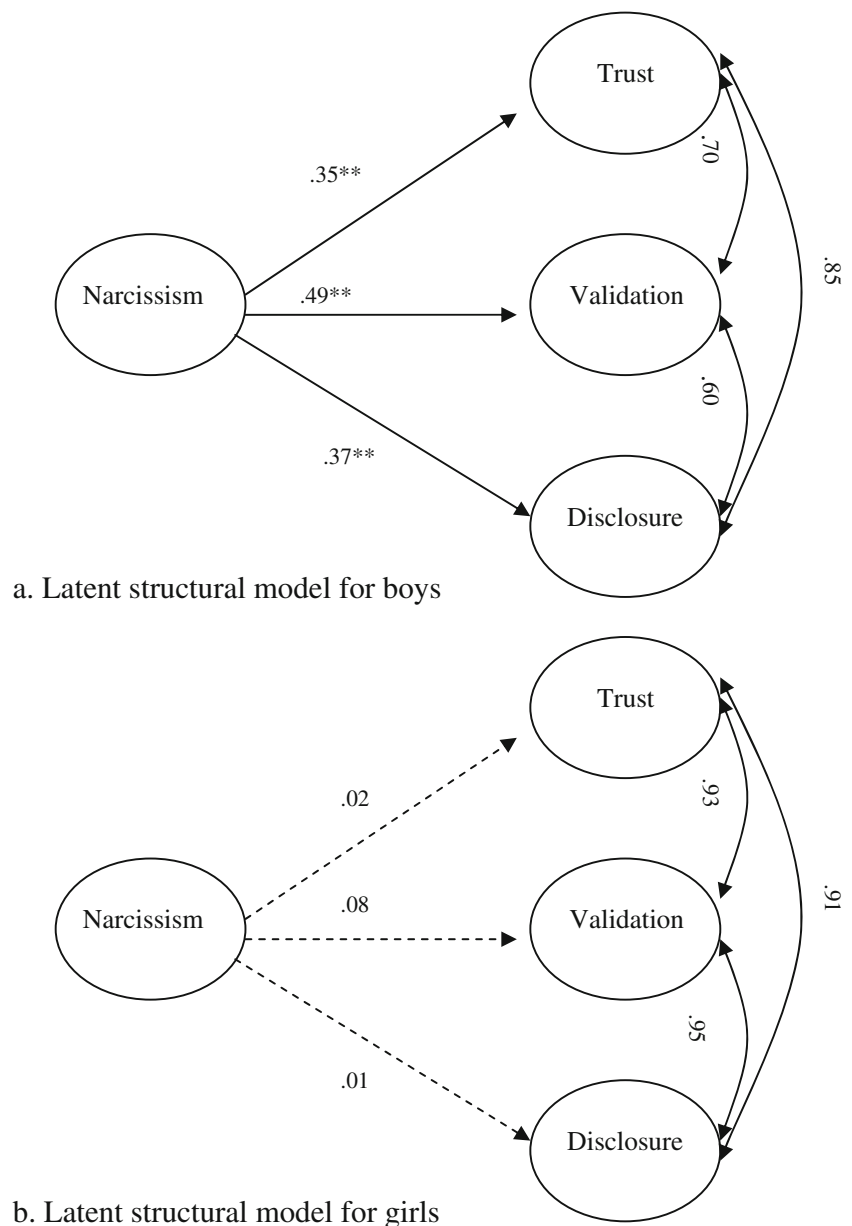
The present study indicates that narcissism positively relates to friendship qualities, especially for boys. These findings

**Table 3** Model fit indexes for structural models

	Df	$\chi^2$	RMSEA	NNFI	NFI	CFI
M1	322	525.39	.051	.96	.91	.96
M2	337	540.80	.050	.96	.91	.96
M3	338	547.75	.050	.96	.91	.96
M4	338	547.22	.050	.96	.91	.96
M5	338	550.70	.051	.96	.91	.96

M<sub>1</sub> = Multiple-group model without any constraint on factor loadings; M<sub>2</sub> = Multiple-group model with constraints on all factor loadings across boys and girls; M<sub>3</sub> = Multiple-group model with a constraint on the path from narcissism to trust & support; M<sub>4</sub> = Multiple-group model with a constraint on the path from narcissism to validation; M<sub>5</sub> = Multiple-group model with a constraint on the path from narcissism to disclosure & communication

**Fig. 1** Standardized path coefficients for the latent structural model for boys (a) and girls (b). Trust = trust & support; Disclosure = disclosure & communication. To facilitate reading, the path coefficients for the grade covariate were omitted. Dashed lines were used for non-significant path. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ . **a** Latent structural model for boys. **b** Latent structural model for girls



lend support to the dynamic self-regulatory processing model of narcissism (Morf and Rhodewalt 2001), which posits that the primary goal of narcissists is to maintain self-esteem and/or preserve positive self-worth. The validation component of friendship quality may provide an important source of confirmation to one's self-worth. Therefore, it is not surprise to observe that adolescents with higher narcissistic traits reported more validation from friends. In addition, previous studies have revealed narcissists are charming, extroverted and socially confident (Holtzman and Strube 2010; Paulhus 2001; Wink 1991). These characteristics may help narcissistic adolescents develop supportive relationships and communicate well with others, which positively contributes to friendship quality. These findings indicate cross-cultural similarities such that Chinese narcissistic individuals like their Western

counterparts (Morf and Rhodewalt 2001) employ the self-regulated strategies to enhance self views.

On the other hand, the results also suggest that culture may influence the function of narcissism. Theories and studies have showed that narcissistic individuals in Western cultures often perceive themselves positively in reference to agent domains (e.g., intelligence, extroversion, and status), but not in communal domains (e.g., kindness, cooperation, and morality) (Campbell et al. 2007). The present study found that narcissistic adolescents in China also reported positive perceptions of interpersonal relationships in communal domains (i.e., trust & support and disclosure & communication in friendship). These findings imply that the theoretic model developed in Western populations (i.e., dynamic self-regulatory processing model of narcissism)

can be applied to the Chinese culture. However, culture also has an influence on the behaviors of narcissistic individuals. In Western countries, individuals highly value independence, and thus narcissistic persons try to maintain their positive self view through enhancing their agentic traits, such as intelligence and status. In collectivistic cultures, people highly value harmonious social relationships (Bond and Wang 1983). Thus, narcissistic adolescents in China may use communal traits or behaviors (i.e., building friendship qualities) to maintain their positive self-view.

### The Moderating Effects of Gender

Consistent with previous research (Foster et al. 2003), the current study of Chinese adolescents showed that males were more narcissistic than females, indicating a higher norm of narcissism among males. Western literature has also illustrated that males displayed greater “stereotypically narcissistic” behaviors than females (Rhodewalt et al. 2006; Morf and Weir 2000). For instance, narcissism is more strongly related to overt aggression in boys than in girls (Marsee et al. 2005).

The results of the present studies revealed that narcissism was associated with positive friendship qualities only in boys, which provided the empirical evidence that narcissistic behavior might be more socially acceptable in males than in females. Theorists have suggested that boys and girls in childhood tend to socialize in sex-segregated groups (Maccoby 1990, 1998). Specifically, boys in same sex groups would be expected to engage in more agentic behaviors, such as striving for mastery and power, whereas girls in all-girls groups would be expected to engage in more communal behaviors, such as striving for intimacy and connectedness. For instance, Suh et al. found that men with male friends were more dominant and women with female friends were more agreeable (Suh et al. 2004). In addition, studies also indicated that behaviors in accordance with gender roles tend to be adaptive (Fanti et al. 2009; Wei et al. 2011). Narcissism as a personality trait is characterized by features such as grandiose self-worth, uniqueness, authority, entitlement and self-admiration. These characteristics are typical agentic traits, and some of which (e.g., uniqueness, authority) are considered signs of masculinity (Bem 1975; Zhang et al. 2001). These masculine traits are more acceptable in male groups, and found more in male–male friendship (Suh et al. 2004). Thus, boys’ narcissistic behaviors are consistent with their gender role and are likely to be positively perceived. For example, within friendship, powerful peers are perceived as more supportive by boys, but not by girls (De Goede et al. 2009). In sum, the findings of the present study provide support to the perspective that behaviors and traits consistent with the gender norm are more acceptable and adaptive.

Furthermore, evidences from many previous studies have indicated that whether narcissism is adaptive depends on what aspects of narcissism are considered (Raskin and Terry

1988; Barry et al. 2007) and what kinds of relationships are investigated (Paulhus 1998; Jonason et al. 2009). This research did not differentiate different aspects of narcissism, but suggested that whether narcissism is adaptive depends on the gender of the narcissistic individuals in the friendship realm. It is possible that gender moderation can also be observed with narcissism sub-dimensions in friendship or other relationships, which warrants future investigation.

### Limitations and Future Directions

Findings of this study enrich our knowledge of narcissistic self-regulatory strategies in social relationships during adolescence, and call attention to the examination of gender differences and cultural influences regarding social adjustment of narcissistic adolescents. However, several limitations of this study should be noted. First, all data were obtained from self-reported measures, which might have overestimated the positive associations between friendship quality and narcissism. Previous studies have found narcissistic individuals tend to perceive events positively and are capable of defending against negative feedback from others (Foster and Campbell 2005; Rhodewalt and Eddings 2002). Thus, it is possible that the more narcissistic participants might report higher friendship qualities than what was accurate. Nevertheless, the gender variation in the associations between narcissism and friendship qualities has provided some support to the validity of this method: Positive self-bias was not present among all adolescents or perhaps was not strong. Future methodology improvement is greatly needed to determine the extent of positive self-bias in narcissistic adolescents’ self-reports of relationship quality. Future research should use multiple informants and multiple methods to assess both narcissism and friendship quality, such as including peer reports, teacher reports, and observation. In addition, the present study employed a cross-sectional design to investigate narcissism and friendship quality. Thus, we could not examine the causal or long-term relationship between narcissism and adolescents’ adjustment. Future research may use a longitudinal design to examine the development of narcissism and its associations with social adjustment.

In summary, this study examines the gender variations in narcissism and in the relations between narcissism and friendship qualities in adolescents. We found that adolescent boys were more narcissistic than girls. Furthermore, we found that narcissism was related to positive friendship qualities in Chinese adolescent boys, but not girls. Findings of this study contribute to our understanding of the functioning of narcissism in social relationships among adolescents and suggest future research to take gender and cultural background into consideration when investigating narcissism in adolescent development.

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## Appendix I

**Table 4** Narcissism personality inventory for Chinese and English translation

Chinese	English version
1. 我喜欢当领导。	I enjoy being a leader.
2. 我是天生的领导者。	I am a born leader.
3. 我认为我是一个好领导。	I think that I am a good leader.
4. 我喜欢拥有支配他人的权力。	I enjoy having the power to control.
5. 我将会成为一个伟大的人。	I will become a great person.
6. 我发现操纵别人是容易的。	I find it easy to manipulate others.
7. 如果让我来统治世界, 这个世界将会更好。	If I had the power to run the world, it would become a better one.
8. 人们似乎总是认可我的权威。	People seem to recognize my authority all the time.
9. 我喜欢负责去作决定	I enjoy having the responsibility for making decisions.
10. 我天生就有一种能影响人们的能力。	I naturally have the ability to influence others.
11. 我很善于让别人遵从我的方式行事	I am good at making others to do thing in my way.
12. 我要成为世人眼里有成就的人。	I will become a person of notable achievements in others' eyes.
13. 我希望将来有一天有人给我写传记。	I wish that someone would write a biography for me in the future.
14. 人们能从我身上学到很多东西	People can learn a lot from me.
15. 我比其他他人更有品位	I have better taste than others.
16. 我比其他他人更能干。	I am more competent than others.
17. 我知道自己很好, 因为别人一直这么跟我说	I know that I am good because others always tell me so.
18. 如果没有我, 很多事情无法顺利进行	Many things would not be accomplished properly without me.
19. 我能让任何人相信我想让他们相信的事。	I am able to make anyone believe whatever I want them to.
20. 每个人都喜欢听我的故事或轶事。	Everyone likes to hear stories and anecdotes about me.
21. 我觉得我是个特别的人。	I think myself special.
22. 虽然我并未刻意去引起他人的注意, 但仍然常会成为他人关注的中心	Although I do not attract others' attention on purpose, I often become the centre of attention.
23. 我是一个非凡的人。	I am a person of extraordinary quality.
24. 我真的喜欢成为注意的焦点。	I do enjoy becoming the focus of attention.
25. 我喜欢照镜子。	I enjoy looking into the mirror.
26. 我喜欢成为注意的中心。	I like to be the center of attention.
27. 在没有得到我想得到的东西之前, 我是永远不会满足的。	I would never feel satisfied before I get whatever I want.
28. 我喜欢开创时尚。	I enjoy initiating a new fashion.

**Table 4** (continued)

Chinese	English version
29. 当我有机会时我就乐于表现自己。	I would show off whenever there is an opportunity.
30. 我喜欢看自己的身体。	I enjoy looking at my body.
31. 我应该比别人得到更多	I deserve having more than others.
32. 我喜欢在公共场合发表自己独特的见解	I like to speak in public expressing my own opinion.

## Appendix II

**Table 5** Friendship quality questionnaire in Chinese and English

Chinese	English
<b>Trust &amp; Support</b>	
1. 我们发生争执后, 很容易和解。	It is easy for us to get over arguments.
2. 他/她常给我一些解决问题的建议。	He/She often gives me advice with figuring things out.
3. 当我们不能说服对方时, 能够尊重对方的选择。	When we can't accept each other's opinions, we respect each other's choice.
4. 他/她关心我的喜怒哀乐。	He/She cares about my feelings.
5. 我们有了好消息时, 总是第一个告诉对方。	Whatever good news we have, we would tell each other first.
6. 他/她不会把我的秘密告诉别人。	He/She never tells my secrets to others.
<b>Validation</b>	
7. 他/她告诉我, 我擅长做某些事情。	He/She tells me I am good at things.
8. 他/她告诉我, 我很聪明。	He/She tells me that I am smart.
9. 他/她使我觉得自己的一些想法很好。	He/She makes me feel that some of my ideas are very good.
10. 即使别人不喜欢我, 他/她也喜欢我。	He/She likes me even if others don't.
11. 我们觉得对方很重要并且与众不同。	We think each other important and special.
<b>Disclosure &amp; Communication</b>	
12. 我们告诉对方自己的秘密。	We tell each other secrets.
13. 遇到让我生气的事情, 我会告诉他/她。	I would tell him/her what upsets me.
14. 我们一起谈论使我们感到难过的事。	We would talk over what we feel sorry about.
15. 我们经常帮助对方排解烦恼。	We often ease each other of worries.
16. 我们总在一块讨论我们所遇到的问题。	We always discuss whatever difficulties we meet with.

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