

The Mechanisms of How Narcissistic Duality Traits Influence on College Student's Organizational Citizenship Behavior from an Impression Management Perspective

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Purpose: Although plenty of studies have examined the antecedents of organizational citizenship behavior, empirical studies exploring the role of individual narcissism in relation to college students' organizational citizenship behavior are relatively scarce. Drawing on the dual theory of narcissism and the conservation of resources theory, this study aimed to explore the relationship between narcissistic duality traits (narcissistic admiration and narcissistic rivalry) and organizational citizenship behavior of college students, and to further examine the mediating role of impression management motivation (assertive impression management motivation and defensive impression management motivation) and the moderating roles of teamwork, interpersonal relationships, and optimism.

Methods: We used the questionnaire method with a sample of undergraduate and graduate students from several universities in Hubei, China. The data sample for analysis consists of 583 college students.

Results: (1) Narcissistic admiration had a significant and positive effect on college students' organizational citizenship behavior, while the effect of narcissistic rivalry was significant and negative; (2) assertive impression management motivation mediated the relationship between narcissistic admiration and college student's organizational citizenship behavior, and defensive impression management motivation mediated the relationship between narcissistic rivalry and college student's organizational citizenship behavior; and (3) teamwork, interpersonal relationships, and optimism positively moderated the relationship between narcissistic admiration and assertive impression management motivation, and these variables positively moderated the indirect effects of assertive narcissism on college student's organizational citizenship behavior through assertive impression management motivation.

Conclusion: We found that college students with narcissistic admiration engaged in more organizational citizenship behaviors than those with narcissistic rivalry. In addition, narcissistic admiration had a positive effect on organizational citizenship behavior through assertive impression management motivation, and narcissistic rivalry had a negative effect on organizational citizenship behavior through defensive impression management motivation. Finally, teamwork, interpersonal relationships, and optimism significantly and positively mediated the relationship between narcissistic admiration and assertive impression management motivation, and the indirect effect of narcissistic admiration on organizational citizenship behavior through assertive impression management motivation. However, the direct effects of teamwork, interpersonal relationships, and optimism on the relationship between narcissistic rivalry and defensive impression management motivation, and the indirect effect of narcissistic rivalry on organizational citizenship behavior through defensive impression management motivation were not significant.

Keywords: narcissistic admiration, narcissistic rivalry, impression management motivation, college student, organizational citizenship behavior

Introduction

The awakening of social self-awareness leads to intense self-pursuit and individualism, which has become increasingly widespread. Narcissism has become a form of culture, with society becoming more and more narcissistic.^{1,2} Compared with 25 years ago, narcissism has increased dramatically and has become common among college students in the United States.^{3,4} In addition, a cross-cultural study found that Chinese college students had higher levels of narcissism than those in the United States and Japan.⁵ Narcissists may exhibit inconsistent behaviors (eg, prosocial behaviors). Indeed, some scholars argued that narcissists lack empathy and tend to engage in few prosocial behaviors.⁶ In contrast, another study pointed out that narcissists strategically display prosocial behaviors to gain attention or praise from others to increase their narcissistic self-esteem.⁷ Narcissism is prevalent among college students, and the younger generation generally exhibits self-appreciative behavior.⁸ Therefore, understanding how narcissists behave in the process of interpersonal interactions can help college teachers to grasp their students' behavioral patterns and manage them effectively.

Organizational citizenship behavior is a type of interpersonal interaction that can help individuals establish and maintain good interpersonal relationships.⁹ The concept of "organizational citizenship" was first proposed by Professor Organ, who defined organizational citizenship behavior as behavior that is voluntarily performed by members of an organization, which is not explicitly recognized by the formal compensation system but is generally beneficial to organizational efficiency.¹⁰ Compared with the organizational setting, there has been little empirical research on organizational citizenship behavior in the educational context. In recent years, scholars exploring organizational citizenship behavior in the educational context have primarily focused on college administrators (eg, college student village officials)^{11,12} and college teachers,^{13–15} while students' organizational citizenship behavior has not received sufficient attention.¹⁶ Among the few studies investigating students' organizational citizenship behavior, Azila-Gbettor used self-consistency theory to empirically test the mediating role of college students' organizational citizenship behavior in the relationship between self-esteem and their commitment to college.¹⁶ Therefore, there is a need to further explore the mechanism of influence of college students' organizational citizenship behavior.

To fill this research gap, we explored the intrinsic mechanism between narcissism and college students' organizational citizenship behavior using the dual theory of narcissism¹⁷ and the conservation of resources theory¹⁸ from the perspective of impression management. The dual theory of narcissism conceptually divides narcissism into narcissistic admiration and narcissistic rivalry, both of which are designed to maintain the overall goal of self-exaggeration but with different motivational, cognitive, and behavioral pathways.¹⁷ Narcissistic admiration uses self-improvement strategies to enhance an individual's self-image, which increases not only their self-esteem but also their feelings of adoration and uniqueness. It also often stimulates assertive impression management motivation in the process of interpersonal interactions,¹⁹ leading to organizational citizenship behavior (eg, helping and advising others).²⁰ In contrast, narcissistic rivalry uses self-defense strategies to avoid social failure, often stimulates defensive impression management motivation in interpersonal interactions, and reduces organizational citizenship behavior to protect the individual's established social image.¹⁹ Impression management motivation is the product of the interaction between external situational factors and individual characteristics.^{21,22} While situational factors are important, individual factors (eg, ability, personality) should also be considered in the context of impression management. Teamwork is an important competency trait for college students in their study life and for their future employment, and individuals with strong teamwork skills have a higher sense of collaboration and information sharing and are more willing to cooperate with team members than those with weak teamwork skills.²³ In addition, interpersonal relationships are a reflection of college students' competent interactions with people.²³ Good interpersonal relationships can improve perceptions of psychological safety, help classmates exchange information, and improve self-worth.²⁴ Optimism reflects individuals' positive experiences of their own behavior and environment, which can encourage individuals to look positively at difficult life situations.²⁵ Research has not fully discussed whether teamwork, interpersonal communication, and optimism catalyze or inhibit the impact of narcissistic traits on individual behavior.

In summary, this study explored the effect of narcissism on college students' organizational citizenship behavior from the perspective of impression management using the dual theory of narcissism and the conservation of resources theory, to answer the following research questions.

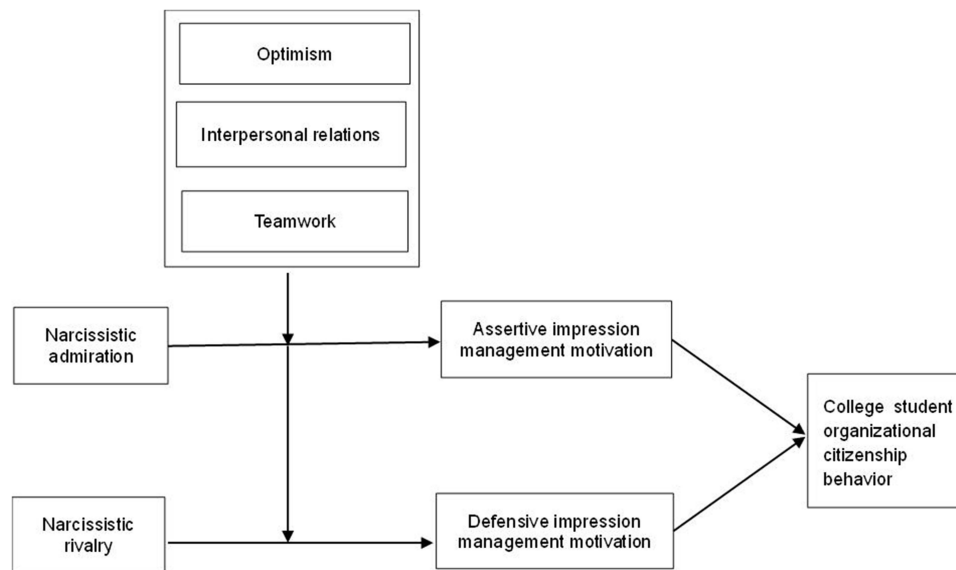


Figure 1 Research framework.

1. What effects do narcissistic admiration and narcissistic rivalry have on college students' organizational citizenship behavior?
2. Does assertive impression management motivation play a mediating role in the relationship between narcissistic admiration and college students' organizational citizenship behavior? Does defensive impression management motivation play a mediating role in the relationship between narcissistic rivalry and college students' organizational citizenship behavior?
3. Do optimism, interpersonal relationships, and teamwork play a moderating role in the mediation model?

The research model is shown in [Figure 1](#).

Literature Review and Hypotheses

Narcissism and College Students' Organizational Citizenship Behavior

The dual theory of narcissism was proposed by Back et al, which divides grandiose narcissism into narcissistic admiration and narcissistic rivalry to explain the seemingly contradictory narcissistic correlates and consequences.¹⁷ Specifically, individuals with narcissistic admiration tend to seek uniqueness and engage in charming behaviors to gain social resources and status.^{17,26,27} In contrast, individuals with narcissistic rivalry use self-defense strategies and display aggressive behaviors to protect their self-image from loss once they perceive that social outcomes do not match their personal expectations.²⁶ Studies have shown that individuals with narcissistic admiration are willing to exhibit more prosocial behaviors to maintain a positive sense of self, whereas individuals with narcissistic rivalry reduce their prosocial behaviors to avoid threats to their sense of self.^{26,28} Based on this evidence, we propose that the relationship of narcissistic admiration, narcissistic rivalry and college students' organizational citizenship behavior have a double-edged sword effect.

Individuals with narcissistic admiration tend to maintain their positive self-evaluation by gaining social admiration through self-improvement.^{17,26,28} We argue that college students with narcissistic admiration tend to exhibit organizational citizenship behaviors. First, to reinforce the feeling of admiration, individuals with narcissistic admiration adopt self-enhancement strategies aimed at feeling good about themselves and demonstrating self-competence so that others will appreciate them.¹⁷ To be respected and appreciated by others, individuals with narcissistic admiration will exhibit organizational citizenship behavior to be affirmed by others, increase their self-esteem, and gain positive self-evaluation. In addition, they tend to pursue uniqueness and a grandiose self-image, which can ultimately lead to the desired social

outcomes. Motivated by positive social outcomes, they will be proactive in expressing themselves, showing charisma, and exhibiting organizational citizenship behavior to achieve leadership priority, social status, and success.

In contrast, individuals with narcissistic rivalry tend to avoid social risks and prevent social failure through self-defense.^{17,26,28} We argue that college students with narcissistic rivalry tend to reduce organizational citizenship behavior. First, to avoid failure and protect their self-image from loss, individuals with narcissistic rivalry adopt self-defense strategies that trigger not only negative intra-individual reactions, such as devaluation of others, but also intense social reactions, such as retaliation.¹⁷ When they feel that their ego is threatened or anticipate the risk of future failure, they avoid engaging in organizational citizenship behavior and may even exhibit hostile behavior. In addition, individuals with narcissistic rivalry compare themselves to perceived competitors, which triggers derogatory thoughts about others to maintain their positive self-evaluation and can lead to negative behaviors,¹⁷ in turn reducing organizational citizenship behavior.

Based on the above discussion, we propose the following hypotheses:

Hypothesis 1a: Narcissistic admiration is positively related to college students' organizational citizenship behavior.

Hypothesis 1b: Narcissistic rivalry is negatively related to college students' organizational citizenship behavior.

The Mediating Role of Impression Management Motivation

Impression management motivation refers to an individual's desire to be viewed positively and avoid being viewed negatively by others.²⁹ This motivation can be divided into assertive impression management motivation and defensive impression management motivation. Specifically, assertive impression management motivation aims to improve an individual's social image and is triggered by a sense of self-improvement caused by perceived opportunities to create a positive self-image. In contrast, defensive impression management motivation aims to protect an individual's established social image and is triggered by negative emotional states that threaten their established social image.¹⁹ The dual theory of narcissism suggests that narcissistic admiration and narcissistic rivalry trigger different emotional motivations and adopt two distinct social strategies to maintain ambitious personal goals.^{17,28}

Individuals with narcissistic admiration maintain their positive self-image by gaining social admiration through self-enhancement and self-promotion.^{17,26,30} They tend to exhibit assertive, dominant, expressive, and charming behaviors that lead to positive social outcomes.³¹ Individuals with narcissistic admiration are prone to engage in social interactions because such interactions signal potential self-improvement.³² Furthermore, narcissistic admiration is strongly correlated with self-concept, extraversion, achievement, self-directed values, and self-esteem.²⁶ In contrast, individuals with narcissistic rivalry maintain their positive self-image through self-defense.^{17,26,30} They want to protect themselves from a negative self-image, often exhibit selfish, arrogant, hostile, and aggressive behaviors, and lack interpersonal warmth and trust, which can have negative behavioral consequences.³¹ Individuals with narcissistic rivalry tend to avoid forming new social interactions, as this may indicate a potential ego threat.³² Moreover, narcissistic rivalry is strongly correlated with other antagonistic aspects of self-concept, unpleasantness, low responsibility, neuroticism, interpersonal indifference, preference for loneliness, impulsivity, irritability, fear of failure, and low trait self-esteem.²⁶ In exploring the relationship between narcissism and social status, it has been found that narcissistic admiration was uniquely associated with a secure motivational style seeking status and achievement, whereas narcissistic rivalry was uniquely associated with an insecure motivational style characterized by avoidance of inferiority.³⁰ Therefore, we propose that college students with narcissistic admiration are willing to communicate and interact with their classmates and want to be recognized and appreciated by them in interpersonal interactions, which stimulates their assertive impression management motivation, thus improving their self-image and leading to self-improvement. In contrast, college students with narcissistic rivalry prefer to avoid social interactions and social risks through self-defense, which stimulates their defensive impression management motivation to protect their established social image.

Furthermore, impression management motivation is an important factor influencing citizenship behavior.³³ Although Bolino considered impression management motivation as a whole and did not discuss it in terms of different types of impression management motivation, the study shows that impression management motivation affects individuals'

behavioral performance. We argue that different types of impression management motivation have different effects on organizational citizenship behavior. Specifically, assertive impression management motivation is an active self-management mindset that encourages college students to form interpersonal relationships to create a good social image for their classmates.^{22,27,28} Prompting students to adopt organizational citizenship behavior. In contrast, defensive impression management motivation is a negative psychological tendency aimed at maintaining an existing social image and avoiding self-image threat, which can prevent college students from forming new interpersonal interactions and thus from adopting organizational citizenship behavior. Based on the above discussion, we propose the following hypotheses:

Hypothesis 2a: Assertive impression management motivation mediates the relationship between narcissistic admiration and college students' organizational citizenship behavior.

Hypothesis 2b: Defensive impression management motivation mediates the relationship between narcissistic rivalry and college students' organizational citizenship behavior.

The Moderating Roles of Teamwork, Interpersonal Relationships, and Optimism

The strength of impression management motivation can be influenced by a variety of situations and personalities, with the relevance of the intended impression, the value of the desired outcome, and the difference between the desired and current social image being central elements.³⁴ According to the conservation of resources theory,¹⁸ individuals tend to strive to acquire, maintain, nurture, and protect the resources they value. Teamwork and interpersonal relationships are resources that individuals can use to change their environment,²³ and they can facilitate the acquisition of new resources. Specifically, college students with high levels of teamwork and interpersonal relationships are willing to participate in team activities in which they can earn the trust, respect, and appreciation of others, thus establishing a good image. This positive expectation of interpersonal interactions promotes their participation in more activities, earning more respect, appreciation, and positive self-evaluation. Therefore, when their levels of teamwork and interpersonal interactions are high, college students with narcissistic admiration have positive social image expectations, leading to strong assertive impression management motivation to access resources and thus to more organizational citizenship behaviors. However, college students with low levels of teamwork and interpersonal interactions are concerned about the negative results of social activities, believing that they will reveal their personal flaws and shortcomings during such activities, thus losing the trust and respect of others, which is not conducive to building a good image and can also depreciate their existing social image. Thus, when equipped with low teamwork and interpersonal skills, individuals with hostile narcissism have negative social image expectations, leading to strong defensive impression management motivation to reduce the loss of individual resources, which in turn leads to less organizational citizenship behavior.

In addition, individuals with an optimistic personality tend to have positive perceptions of people or events around them, and to pay more attention to socially acceptable information in interpersonal interactions, and their behavior has obvious positive characteristics.²⁵ In the case of narcissistic admiration, highly optimistic individuals maintain the positive self-evaluation that they are appreciated, respected, and recognized by others in social interactions, which enhances their assertive impression management motivation and encourages them to adopt positive and effective strategies to achieve their goals;³⁵ as a result, they adopt more organizational citizenship behaviors. In the case of narcissistic rivalry, low optimism motivates individuals to pay attention to negative information in their lives, increasing their negative expectations in social interactions and making them more prone to anxiety, stress, and negative affect.³⁶ To reduce the loss of resources, such individuals will increase their defensive impression management motivation and thus exhibit less organizational citizenship behavior. We therefore propose the following hypotheses:

Hypothesis 3a: Teamwork, interpersonal relationships, or optimism positively moderate the relationship between narcissistic admiration and assertive impression management motivation, such that this relationship is enhanced when the level of teamwork, interpersonal relationships, or optimism is high rather than low.

Hypothesis 3b: Teamwork, interpersonal relationships, or optimism negatively moderate the relationship between narcissistic rivalry and defensive impression management motivation, such that this relationship is enhanced when the level of teamwork, interpersonal relationships, or optimism is low rather than high.

Hypothesis 4a: Teamwork, interpersonal relationships, or optimism positively moderate the mediating effect of assertive impression management motivation, such that this mediating effect is enhanced when the level of teamwork, interpersonal relationships, or optimism is high rather than low.

Hypothesis 4b: Teamwork, interpersonal relationships, or optimism negatively moderate the mediating effect of defensive impression management motivation, such that this mediating effect is enhanced when the level of teamwork, interpersonal relationships, or optimism is low rather than high.

Methods

Sample and Procedure

To test our hypotheses, we used the questionnaire method with a sample of undergraduate and graduate students from several universities in Hubei, China. To avoid common method bias, we adopt a two-wave study, and the interval between two investigations within two weeks. In addition, all surveys were in the form of online questionnaires. We contacted teachers from different universities in Hubei and distributed the online questionnaire to students through them. In the first phase, there was no restriction on who could fill out the questionnaire. In the second phase, we only asked students who had already filled out the first stage questionnaire to do so.

During the first investigation, we focused on demographic information such as gender, age, and household size, while asking the students to evaluate their own narcissistic admiration, narcissistic rivalry, teamwork, optimism, and interpersonal relationships. We collected 935 questionnaires in this phase. The second investigation targeted at these 935 students, and they were asked to evaluate their own assertive impression management motivation, defensive impression management motivation, and organizational citizenship behavior. We obtained 633 questionnaires, and the response rate was 67.7%. After excluding invalid questionnaires such as answering the questions indiscriminately and completing the questionnaire too quickly, we finally obtained 583 valid questionnaires. In the samples of college students, 26.1% are male students, the average age is 20.91, 50.4% of them have urban household registration.

Methodology

The scales used in the study were all based on established scales published in top international journals. The English scales were translated into Chinese following a strict double-blind translation method,³⁷ with the help of an associate professor in human resources who was fluent in both language. Narcissistic admiration and narcissistic rivalry were scored on a 6-point Likert scale (1 = strongly disagree; 6 = strongly agree). The remaining variables were scored on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree).

Narcissistic Admiration

We used the Narcissistic Admiration Scale developed by Back et al¹⁷ to measure this construct, which contains nine items. A representative item is “I deserve to be seen as a great personality.” Cronbach’s alpha for this scale was 0.885 in our study.

Narcissistic Rivalry

We used the Narcissistic Rivalry Scale developed by Back et al,¹⁷ which contains nine items. A representative item is “Most people won’t achieve anything.” Cronbach’s alpha for this scale was 0.841 in our study.

Assertive Impression Management Motivation

We used the Impression Management Behavior Scale developed by Bolino and Turnley³⁸ to measure this variable. The wording of the original scale was adjusted to reflect the expression patterns of “willingness” and “would” to emphasize motivation, following the approach used by Cao et al²⁰. Through elimination, eight items were selected to represent

assertive impression management motivation (eg, “You are proud to talk about your experience and education”). Cronbach’s alpha for this scale was 0.868 in our study.

Defensive Impression Management Motivation

We used the Impression Management Behavior Scale developed by Bolino and Turnley³⁸ to measure this variable. As with assertive impression management motivation, the wording of the original scale was adjusted following Cao et al²⁰. Through elimination, eight items were selected to represent defensive impression management motivation (eg, “You are willing to act like you know very little to make people more willing to help you”). Cronbach’s alpha for this scale was 0.888 in our study.

Organizational Citizenship Behavior

We used the Organizational Citizenship Behavior Scale for College Students developed by Zou,³⁹ which contains 18 items. A representative item is “Take the initiative to greet and give way when you see teachers and classmates.” Cronbach’s alpha for this scale was 0.913 in our study.

Teamwork, Interpersonal Relationships, and Optimism

The Employability Scale developed by Yu et al²³ was used to measure these constructs. Among them, the teamwork subscale contains three items (eg, “I am willing to share information resources with team members”); the interpersonal relationships subscale consists of five items (eg, “Easily integrated into new groups”); and the optimism subscale consists of six items (eg, “I always see the good side when looking at problems”). Cronbach’s alpha was 0.810 for teamwork, 0.828 for interpersonal relationships, and 0.871 for optimism in our study.

In addition, students’ demographic variables have been controlled, such as gender and age, because of their potential effects on organizational citizenship behavior.⁴⁰ We believe that the living environment has an impact on an individual’s organizational citizenship behavior, and therefore control the household registration as well.⁴¹

Results

Confirmatory Factor Analysis

Having too many items when measuring variables will increase standard errors.^{28,42} As this was the case for the variables in this study, the one-dimensional variables (narcissistic admiration and narcissistic rivalry) were packaged using the balance method,⁴³ and these two variables were packaged into three packages.

We used Mplus 8.0 to conduct confirmatory factor analysis to test the discriminant validity of each variable. As there were three moderating variables (teamwork, interpersonal relationships, optimism), confirmatory factor analysis was conducted on teamwork, interpersonal relationships, and optimism, and the remaining five variables separately. The analysis results are shown in Tables 1–3, respectively. As shown in Table 1, the fit indices of the six-factor model with teamwork as the moderating variable ($\chi^2(89) = 442.734$; CFI = 0.920, TLI = 0.893, RMSEA = 0.083, SRMR = 0.060) were significantly better than those of the other

Table 1 Results of Confirmatory Factor Analysis (Moderating Variable: Teamwork)

Model Descriptions	χ^2	df	χ^2/df	$\Delta\chi^2/\Delta df$	CFI	TLI	RMSEA	SRMR
Six-factor Model (AN;RN;TW;AIMO;DIMM;COCB)	442.734	89.00	4.975		0.920	0.893	0.083	0.060
Five-factor Model (AN+RN;TW;AIMO;DIMM;COCB)	1377.156	94.00	14.651	934.422(5)***	0.711	0.631	0.153	0.141
Four-factor Model (AN+RN;TW;AIMO+DIMM;COCB)	1626.563	98.00	16.598	1183.829(4)***	0.656	0.578	0.164	0.158
Three-factor Model (AN+RN+TW;AIMO+DIMM;COCB)	1915.509	101.00	18.965	1472.775(3)***	0.591	0.514	0.176	0.162
TWO-factor Model (AN+RN+TW;AIMO+DIMM+COCB)	2145.623	103.00	20.831	1702.889(2)***	0.540	0.464	0.184	0.165
Single-factor Model (AN+RN+TW+AIMO+DIMM+COCB)	2579.028	104.00	24.798	2136.294(1)***	0.442	0.357	0.202	0.162

Note: Statistically significant values *** $p < 0.001$.

Table 2 Results of Confirmatory Factor Analysis (Moderating Variable: Interpersonal Relationship)

Model Descriptions	χ^2	df	χ^2/df	$\Delta\chi^2/\Delta df$	CFI	TLI	RMSEA	SRMR
Six-factor Model (AN;RN;IR;AIMO;DIMM;COCB)	581.793	120	4.848		0.908	0.883	0.081	0.059
Five-factor Model (AN+RN;IR;AIMO;DIMM;COCB)	1521.408	125	12.171	939.615(5)***	0.722	0.659	0.138	0.131
Four-factor Model (AN+RN;IR;AIMO+DIMM;COCB)	1772.781	129	13.742	1190.988(4)***	0.672	0.611	0.148	0.146
Three-factor Model (AN+RN+IR;AIMO+DIMM;COCB)	2230.530	132	16.898	1648.737(3)***	0.582	0.515	0.165	0.146
TWO-factor Model (AN+RN+IR;AIMO+DIMM+COCB)	2466.213	134	18.405	1884.420(2)***	0.535	0.469	0.173	0.148
Single-factor Model (AN+RN+TW+AIMO+DIMM+COCB)	2829.483	135	20.959	2247.690(1)***	0.463	0.391	0.185	0.145

Note: Statistically significant values *** $p < 0.001$.

Table 3 Results of Confirmatory Factor Analysis (Moderating Variable: Optimism)

Model Descriptions	χ^2	df	χ^2/df	$\Delta\chi^2/\Delta df$	CFI	TLI	RMSEA	SRMR
Six-factor Model (AN;RN;OP;AIMO;DIMM;COCB)	621.482	137	4.536		0.908	0.885	0.078	0.059
Five-factor Model (AN+RN;OP;AIMO;DIMM;COCB)	1565.219	142	11.023	943.737(5)***	0.730	0.675	0.131	0.127
Four-factor Model (AN+RN;OP;AIMO+DIMM;COCB)	1819.077	146	12.459	1197.595(4)***	0.683	0.628	0.140	0.143
Three-factor Model (AN+RN+OP;AIMO+DIMM;COCB)	2303.936	149	15.463	1682.454(3)***	0.591	0.531	0.158	0.140
Two-factor Model (AN+RN+IR;AIMO+DIMM+COCB)	2532.914	151	16.774	1911.432(2)***	0.548	0.489	0.164	0.140
Single-factor Model (AN+RN+TW+AIMO+DIMM+COCB)	2883.730	152	18.972	2262.248(1)***	0.482	0.417	0.176	0.138

Note: "+" 2 factors are combined into one factor; *** $p < 0.001$.

Abbreviations: AN, Narcissistic admiration; RN, Narcissistic rivalry; TW, Teamwork; OP, Optimism; IR, Interpersonal relationship; AIMM, Assertive impression management motivation; DIMM, Defensive impression management motivation; COCB, College student organizational citizenship behavior.

five alternative models. Table 2 shows that the fit indices of the six-factor model with interpersonal relationships as the moderating variable ($\chi^2(120) = 581.793$; CFI = 0.908, TLI = 0.883, RMSEA = 0.081, SRMR = 0.059) were significantly better than those of the other five alternative models. Similarly, the fit indices of the six-factor model with optimism as the moderating variable ($\chi^2(137) = 621.482$; CFI = 0.908, TLI = 0.885, RMSEA = 0.078, SRMR = 0.059) were significantly better than those of the other five alternative models, and all reached an acceptable level.⁴⁴ Therefore, all of the variables measured in this study had good discriminant validity.

Common Method Bias

In this study, Harman's single-factor test was used to test for common method bias. We used SPSS 25.0 for principal component analysis, and the results showed that the cumulative variance of the first factor extracted was 20.92%, lower than the recommended value of 40%.⁴⁵ Therefore, there was no serious problem of common method bias in the study.

Descriptive Statistics and Correlation Analysis

We used SPSS 25.0 for descriptive statistical analysis and correlation analysis of all variables in the study. The means, standard deviations, and correlations of all variables are shown in Table 4. As shown in Table 4, narcissistic admiration was significant and positively correlated with organizational citizenship behavior ($r = 0.335$, $p < 0.01$), and narcissistic admiration was significantly and positively correlated with assertive impression management motivation ($r = 0.343$, $p < 0.01$). There was a significant and positive correlation between assertive impression management motivation and organizational citizenship behavior ($r = 0.274$, $p < 0.01$). Narcissistic rivalry was significantly and negatively correlated with organizational citizenship behavior ($r = -0.429$, $p < 0.01$). Narcissistic rivalry was positively correlated with

Table 4 Results of Descriptive Statistics and Correlation Analysis

	1	2	3	4	5	6	7	8	9	10	11
1. Gender											
2. Age	0.028										
3. Urban/Rural	0.050	0.047									
4. AN	-0.073	-0.004	-0.088*								
5. RN	-0.061	0.036	-0.04	-0.122**							
6. IR	-0.1240**	-0.068	-0.083*	0.520**	-0.270**						
7. OP	-0.056	-0.057	0.000	0.397**	-0.391**	0.629**					
8. TW	-0.024	0.033	-0.007	0.196**	-0.316**	0.481**	0.558**				
9. AIMM	0.124**	0.007	-0.049	0.343**	-0.007	0.366**	0.272**	0.320**			
10. DIMM	-0.092*	-0.002	0.014	0.016	0.445**	-0.063	-0.174**	-0.092*	0.309**		
11. COCB	0.063	-0.031	-0.013	0.335**	-0.429**	0.422**	0.452**	0.390**	0.274**	-0.272**	
Mean	1.739	20.909	1.496	3.749	2.747	3.513	3.812	4.007	3.479	2.369	3.804
SD	0.439	8.477	0.500	0.785	0.749	0.657	0.608	0.529	0.684	0.746	0.564

Note: * $p < 0.05$. ** $p < 0.01$.

Abbreviations: AN, Narcissistic admiration; RN, Narcissistic rivalry; TW, Teamwork; OP, Optimism; IR, Interpersonal relationship; AIMM, Assertive impression management motivation; DIMM, Defensive impression management motivation; COCB, College student organizational citizenship behavior.

defensive impression management motivation ($r = 0.445$, $p < 0.01$), and defensive impression management motivation was negatively correlated with organizational citizenship behavior ($r = -0.272$, $p < 0.01$). Therefore, H1a and H1b were preliminarily verified.

Hypothesis Testing

We conducted a full model path analysis using SPSS 25.0 and the PROCESS plug-in to test all of the research hypotheses,²⁸ and the results are shown in Figure 2. Narcissistic admiration had a significant and positive effect on organizational citizenship behavior ($b = 0.203$, $SE = 0.030$, $p = 0.000$), and narcissistic rivalry had a significant and negative effect on organizational citizenship behavior ($b = -0.288$, $SE = 0.032$, $p = 0.000$). Therefore, H1a and H2a were supported.

Narcissistic admiration had a significant and positive effect on assertive impression management motivation ($b = 0.306$, $SE = 0.034$, $p = 0.000$). Assertive impression management motivation had a significant and positive effect on organizational citizenship behavior ($b = 0.140$, $SE = 0.034$, $p = 0.000$), and the indirect effect of narcissistic admiration on organizational citizenship behavior through assertive impression management motivation was also significant, with an effect of 0.043, standard error of 0.013, and 95% confidence interval of [0.020, 0.073] excluding 0, indicating a significant mediating effect and supporting H2a. In addition, narcissistic rivalry had a significant and positive effect on defensive impression management motivation ($b = 0.442$, $SE = 0.037$, $p = 0.000$). Defensive impression management motivation had a significant and negative effect on organizational citizenship behavior ($b = -0.076$, $SE = 0.032$, $p = 0.017$), and the indirect effect of narcissistic rivalry on organizational citizenship behavior through defensive impression management motivation was also significant, with an effect of -0.034, standard error of 0.015, and 95% confidence interval of [-0.062, -0.005] excluding 0; therefore, H2b was supported.

Furthermore, we used PROCESS to center all of the variables. We used Model 1 to examine the moderating effects of teamwork, interpersonal relationships, and optimism. The results showed that the interaction term of narcissistic admiration and teamwork after centering had a significant and positive effect on assertive impression management motivation ($b = 0.167$, $SE = 0.055$, $p = 0.002$). The interaction term of narcissistic admiration and interpersonal relationships, after centering, had a significant and positive effect on assertive impression management motivation ($b = 0.165$, $SE = 0.044$, $p = 0.000$). The interaction term of narcissistic admiration and optimism, after centering, had a significant and positive effect on assertive impression management motivation ($b = 0.222$, $SE = 0.049$, $p = 0.000$). These results suggest the moderating roles of teamwork, interpersonal relationships, and optimism in the relationship between narcissistic admiration and assertive impression management motivation. Therefore, H3a was supported. However, the interaction term of narcissistic rivalry and teamwork, after centering, had no significant effect on defensive

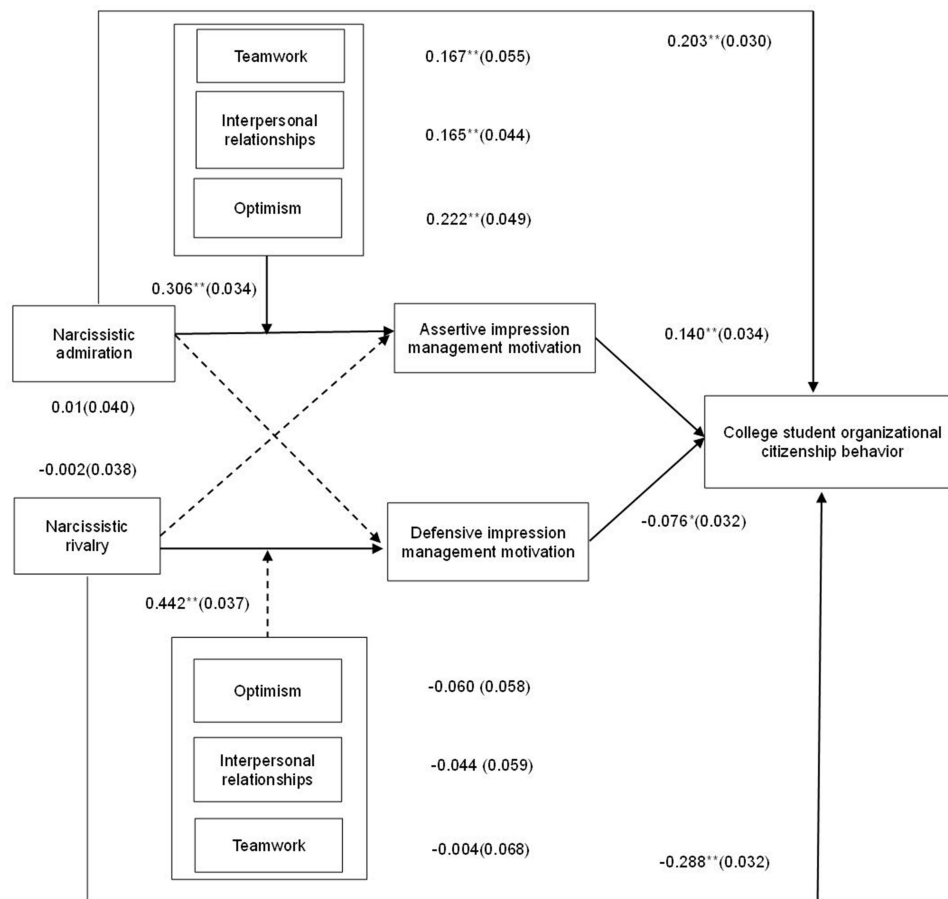


Figure 2 Results of full model path analysis.

Notes: Non-standardized coefficients are reported, and standard errors are in parentheses; Solid lines indicate significant path coefficients, dashed lines indicate insignificant path coefficients. For simplicity, the control variable path coefficients have been omitted. * $p < 0.05$; ** $p < 0.01$.

impression management motivation ($b = -0.004$, $SE = 0.068$, $p = 0.954$). The interaction term of narcissistic rivalry and interpersonal relationships, after centering, had no significant effect on defensive impression management motivation ($b = -0.044$, $SE = 0.059$, $p = 0.452$). The interaction term of narcissistic rivalry and optimism, after centering, had no significant effect on defensive impression management motivation ($b = -0.060$, $SE = 0.058$, $p = 0.305$). These results suggest that teamwork, interpersonal relationships, and optimism did not moderate the relationship between narcissistic rivalry and defensive impression management motivation. Therefore, H3b was not supported.

To further clarify the moderating effects of teamwork, interpersonal relationships, and optimism on the relationship between narcissistic admiration and assertive impression management motivation, we plotted the moderating effects and analyzed them at different levels of the moderating variables (1 standard deviation above or below the mean; Figures 3–5, respectively). According to the moderating effect plot, the positive relationship between narcissistic admiration and assertive impression management motivation was significant when the level of individual teamwork was low ($\beta = 0.164$, $SE = 0.046$, $p = 0.000$), and it was also significant but stronger when the level of individual teamwork was high ($\beta = 0.341$, $SE = 0.042$, $p = 0.000$). The positive relationship between narcissistic admiration and assertive impression management motivation was not significant when the level of interpersonal relationships was low ($\beta = 0.058$, $SE = 0.050$, $p = 0.247$), but it was significant and strong when the level of interpersonal relationships was high ($\beta = 0.275$, $SE = 0.045$, $p = 0.000$). The positive relationship between narcissistic admiration and assertive impression management motivation was not significant when the level of optimism was low ($\beta = 0.096$, $SE = 0.049$, $p = 0.050$), but it was significant and strong when the level of optimism was high ($\beta = 0.366$, $SE = 0.044$, $p = 0.000$). In summary, H3a was again supported.

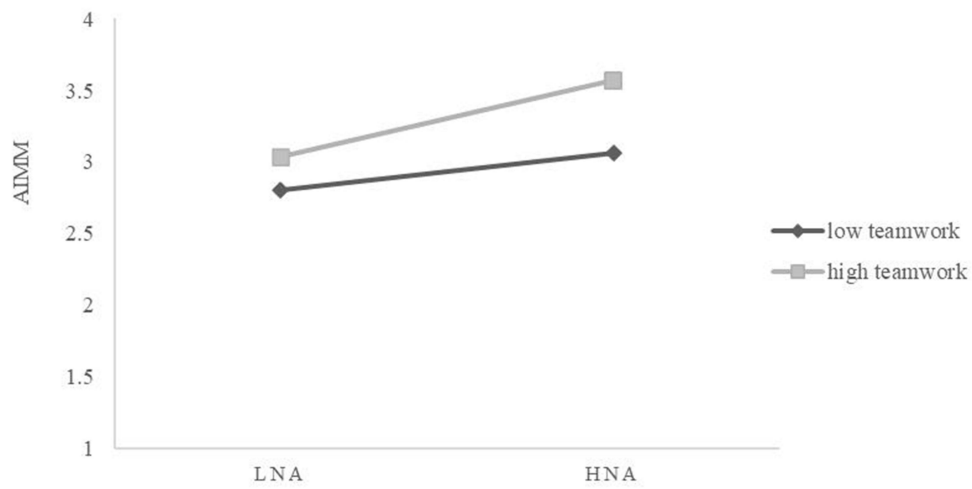


Figure 3 The moderating role of teamwork.

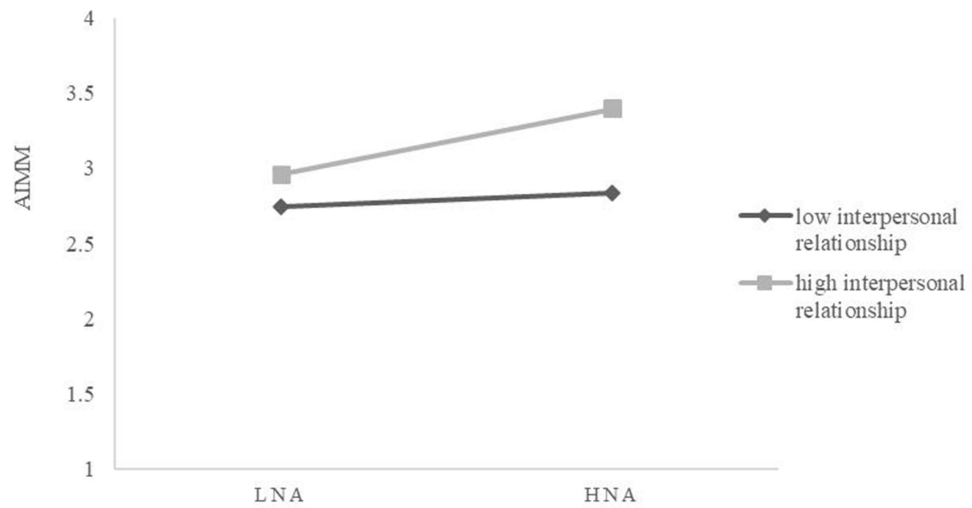


Figure 4 The moderating role of interpersonal relationships.

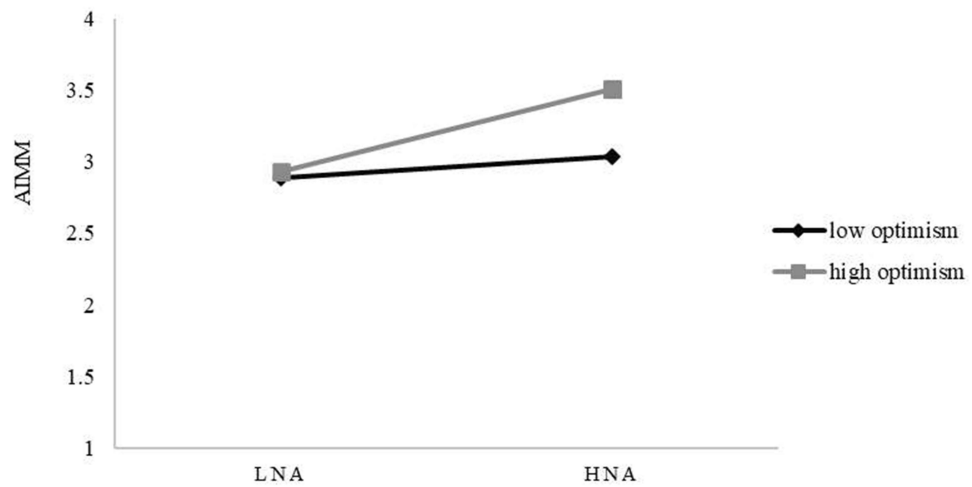


Figure 5 The moderating role of optimism.

Table 5 The Moderating Effect of Teamwork/Optimism/Interpersonal Relationship on Mediating Effects

	Indirect Effect			Standard Error			95% CI		
	TW	IR	OP	TW	IR	OP	TW	IR	OP
M-SD	0.023	0.008	0.014	0.011	0.010	0.009	[0.007, 0.048]	[-0.010, 0.031]	[-0.003, 0.035]
M+SD	0.048	0.039	0.051	0.015	0.012	0.016	[0.022, 0.083]	[0.018, 0.067]	[0.024, 0.087]
Difference	0.025	0.030	0.038	0.014	0.013	0.017	[0.003, 0.057]	[0.009, 0.061]	[0.013, 0.076]

Abbreviations: TW, Teamwork; OP, Optimism; IR, Interpersonal relationships.

Finally, we used the PROCESS macro (Model 7) to estimate the direct effects, standard deviations, confidence intervals, and indirect effects of narcissistic admiration on organizational citizenship behavior through assertive impression management motivation in the presence of high and low levels of teamwork, interpersonal relationships, and optimism. The results are presented in Table 5.

The results showed that at low levels of teamwork, the indirect effect of narcissistic admiration on organizational citizenship behavior through assertive impression management motivation had a value of 0.023, with a standard error of 0.011 and a 95% confidence interval of [0.007, 0.048] excluding 0, indicating a significant effect. At high levels of individual teamwork, this indirect effect was 0.048, with a standard error of 0.015 and a 95% confidence interval of [0.022, 0.083] excluding 0, indicating a significant effect. The difference between the indirect effects at high and low levels of teamwork was 0.025, with a standard error of 0.014 and a 95% confidence interval of [0.003, 0.057] excluding 0, indicating a significant difference. Furthermore, at low levels of interpersonal relationships, the indirect effect of narcissistic admiration on organizational citizenship behavior through assertive impression management motivation was 0.008, with a standard error of 0.010 and a confidence interval of [-0.010, 0.031] containing 0, indicating that the indirect effect was not significant. At high levels of interpersonal relationships, this indirect effect was 0.039, with a standard error of 0.012 and a 95% confidence interval of [0.018, 0.067] excluding 0, indicating a significant effect. The difference between the indirect effects at high and low levels of interpersonal relationships was 0.030, with a standard error of 0.013 and a 95% confidence interval of [0.009, 0.061] excluding 0, indicating a significant difference. Last, at low levels of optimism, the indirect effect of narcissistic admiration on organizational citizenship behavior through assertive impression management motivation was 0.014, with a standard error of 0.009 and a confidence interval of [-0.003, 0.035] containing 0, indicating that the indirect effect was not significant. At high levels of optimism, this indirect effect was 0.051, with a standard error of 0.016 and a confidence interval of [0.024, 0.087] excluding 0, indicating a significant effect. The difference between the indirect effects at high and low levels of optimism was 0.038, with a standard error of 0.017 and a confidence interval of [0.013, 0.076] excluding 0, indicating a significant difference. Therefore, H4a was supported. As the moderating roles of teamwork, interpersonal relationships, and optimism in the relationship between narcissistic rivalry and defensive impression management motivation proposed in H3b were not supported, H4b was not tested.

Conclusion and Discussion

Research on narcissistic tendencies among college students has yielded inconsistent results, with some studies showing no significant increase in narcissism among college students,⁴⁶ while the “narcissism epidemic” in the college population remains the dominant academic view.^{3,4} In this context, Chinese and international scholars have gradually turned to the study of narcissistic traits in college students and their effects on individual behavioral performance.^{2,47–50} However, few studies have examined the relationship between narcissistic traits and organizational citizenship behavior among college students. To address this research gap, we developed a model of the relationships between narcissistic admiration, narcissistic rivalry, and organizational citizenship behavior among college students, based on the dual theory of narcissism and the conservation of resources theory, and discussed the mediating roles of assertive impression management motivation and defensive impression management motivation, as well as the moderating roles of teamwork, interpersonal relationships, and optimism.

By analyzing 583 questionnaires, we found that college students with narcissistic admiration engaged in more organizational citizenship behaviors than those with narcissistic rivalry. In addition, narcissistic admiration had

a positive effect on organizational citizenship behavior through assertive impression management motivation, and narcissistic rivalry had a negative effect on organizational citizenship behavior through defensive impression management motivation. Finally, teamwork, interpersonal relationships, and optimism significantly and positively mediated the relationship between narcissistic admiration and assertive impression management motivation, and the indirect effect of narcissistic admiration on organizational citizenship behavior through assertive impression management motivation. However, the direct effects of teamwork, interpersonal relationships, and optimism on the relationship between narcissistic rivalry and defensive impression management motivation, and the indirect effect of narcissistic rivalry on organizational citizenship behavior through defensive impression management motivation were not significant.

Theoretical Implications

First, this study explored the double-edged sword effect of the relationship between narcissistic admiration, narcissistic rivalry, and college students' organizational citizenship behavior, thus enriching the literature on narcissism and organizational citizenship behavior among college students. Recent research on narcissism has primarily focused on narcissistic leadership in organizational contexts^{51–53} and employee narcissism.^{54–56} However, little research has explored the influence of narcissistic traits in learning environments. In addition, studies on college students' narcissism have mostly focused on negative behaviors (eg, risky health behavior, infidelity, Type A behavior), while few studies have explored the relationship between college students' narcissism and positive behaviors. Therefore, drawing on the dual theory of narcissism this study examined the effects of narcissistic admiration and narcissistic rivalry on college students' organizational citizenship behavior, a type of positive behavior, thus enriching the literature on narcissistic traits in the student population.

Second, from the perspective of impression management, this study identified the mechanism of influence of narcissistic admiration and narcissistic rivalry on college students' organizational citizenship behavior. The results showed that the organizational citizenship behavior of narcissistic students is influenced through different pathways to maintain their positive image and positive self-evaluation. Specifically, college students with narcissistic admiration are likely to create a good social image and gain the admiration and praise of their classmates, which will stimulate their assertive impression management motivation, encourage them to be more proactive in helping their classmates, and engage in more organizational citizenship behaviors. In contrast, students with narcissistic rivalry tend to protect their existing social image from threats, which will stimulate their defensive impression management motivation and reduce their participation in interpersonal interactions, help with classmates, and organizational citizenship behavior. This conclusion not only supports the Narcissistic Admiration and Rivalry Concept (NARC), which states that narcissistic admiration and narcissistic rivalry trigger different emotions, motivations, and behavioral pathways,¹⁷ but also provides a new theoretical perspective for future research, namely the perspective of impression management, in response to researchers' call for further research on the relationship between impression management and civic behavior.³³

Third, based on the conservation of resources theory, this study explored the moderating roles of teamwork, interpersonal relationships, and optimism in the relationships between narcissistic admiration, narcissistic rivalry, and college students' organizational citizenship behavior, providing a better understanding of the role of narcissism to campus administrators. Previous studies have paid insufficient attention to the role of individual factors in narcissism. According to the conservation of resources theory, individuals tend to continuously acquire, maintain, nurture, and preserve the resources they value. Teamwork, interpersonal relationships, and optimism are resources that individuals possess to change and influence their environment. When the levels of teamwork and interpersonal relationships are high, individuals with narcissistic admiration have positive social image expectations for interpersonal interactions. In addition, with high levels of optimism, individuals have a positive cognition of social communication and can be accepted, recognized, and appreciated by others. To access more resources and maintain their self-image, individuals tend to have stronger assertive impression management motivation and to engage in more organizational citizenship behaviors. However, our results showed that teamwork, interpersonal relationships, and optimism do not have a moderating effect on narcissistic rivalry and defensive impression management motivation. Therefore, our expectation that teamwork, interpersonal skills, and optimism would moderate the self-defense of individuals with narcissistic rivalry to reduce resource loss was not supported, indicating that these variables cannot suppress the negative impact of narcissistic rivalry on college students' organizational citizenship behavior.

Practical Implications

First, our findings can help college students to better understand narcissism and the effects of narcissistic traits. Narcissism has been considered a dark personality trait since its inception. It is often associated with arrogance, privilege, lack of empathy, and self-interest,⁵⁷ leading the student population to reject narcissistic individuals. We tested the relationship between narcissism and college students' organizational citizenship behavior based on the two dimensions of narcissism. College students should recognize the double-edged sword effect of narcissistic traits to leverage the positive role of narcissistic admiration and restrain the negative role of narcissistic rivalry. In addition, our findings can help individuals with narcissistic rivalry understand their own behavioral process to reduce or avoid negative behaviors.

Second, campus organizations should enhance the behavioral expression of narcissistic admiration by improving college students' levels of teamwork, interpersonal skills, and optimism. Our results showed that high (vs low) levels of teamwork, interpersonal relationships, and optimism increase the assertive impression management motivation of college students with narcissistic admiration, leading them to engage in more organizational citizenship behaviors. Therefore, when organizing campus activities, more tasks involving teamwork should be organized to enhance students' sense of collaboration. Encouraging students to participate in group activities and external exchange activities, and providing them with communication guidance in various forms can improve their interpersonal skills. In addition, students' organizational citizenship behavior can be enhanced by creating and promoting a positive and optimistic campus culture, creating a good campus atmosphere, and cultivating positive and optimistic attitudes toward life.

Limitations and Future Directions

First, this study has some limitations. The sample only involved college students. Future research could therefore use different data sources to expand the scope of application of the findings. Second, although the data were collected in two phases and the homogeneity of variance was controlled within a relatively ideal range, common method bias was still an issue. Third, while some demographic variables (eg, gender, age, and household registration) were used as control variables, the effects of other variables (eg, psychological contract)^{58,59} were not controlled for. Future studies could examine the effects of such factors. Finally, the only boundary conditions considered were the individual factors of college students. Narcissism as a personality trait is affected by situations, cultures, and other aspects, so future research should further explore the boundary conditions between narcissism and college students' organizational citizenship behavior, while taking into account China's cultural traits, such as its collectivist culture and emphasis on humility.

Ethical Statement

This study was approved by the Ethics Committee on Human Experimentation of Hubei University and complied with the Declaration of Helsinki. Before the survey, the written informed consent form, and an introduction of the purpose of our survey research were provided to students together with the questionnaires. Explanations were made to the participants that this research adopts the principle of voluntary participation, and all the collected data would be kept strictly confidential, and the survey is only for research purposes. Before filling out the survey questionnaires, all students claimed that they understand the purpose of our survey research and agree to participate voluntarily.

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Disclosure

The authors report no conflicts of interest in this work.

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