The Effect of University Students' Identity of Family Education and Virtues on the Out-Group Trust—Mediated by Cultural Self-Confidence and Moderated by Interest in the Winter Olympics

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Abstract

Following the Beijing Winter Olympics, this paper investigated 790 Chinese University students' family education and virtues identity, cultural confidence, out-group trust, and interest in the Beijing Winter Olympics. The results of the study showed that family education and virtues identity had a positive effect on out-group trust; cultural confidence played a partial mediating role in the relationship between family education and virtues identity, and out-group trust; interest in the Winter Olympics effectively regulated the relationship between family education and virtues, cultural confidence, and out-group trust. The findings suggest that family education and virtues identity, and cultural confidence could be enhanced; further multi-disciplinary research is needed in order to provide a better understanding of the development of out-group trust and shed more light on the possible significant impact of key international events on university students.

Keywords: Family education and virtues, Cultural confidence, Out-group trust, Beijing Winter Olympics

Introduction

The Olympic Games are the most-watched sporting event in the world (Shvetsova & Fomin, 2022) and have a huge influence on China. The 2008 Beijing Olympics marked the beginning of China's modernization and internationalization in the global community (Xu, 2006). In addition, the 2022 Beijing Winter Olympics showed the world the spirit of China's new era, and brought the confidence and spiritual wealth of China to the next generation of youth in China. The success of the 2022 Beijing Winter Olympics not only attracted Chinese youth to actively participate in winter sports (Ainsworth & Sallis, 2022), but it was like an epic masterpiece that conveyed the value of family, society and nation. From the cultural confidence reflected in the opening ceremony of the Winter Olympics, to the family style portrayed by the athletes after winning a championship, to the "more united" Olympic spirits at the closing

ceremony, it brought a profound experience to Chinese youth. The concepts of family style, cultural confidence, and trust, such as "good family education", "good family style", "cultural confidence", "unity", "trust" and other related words, were repeatedly mentioned on Chinese social networks.

Family education and virtues are highly valued in China (Eryong & Li, 2020). After the 19th National Congress of the Communist Party of China, the construction of family education and virtues was raised to the level of national governance and administrative management (Xiao, 2022). Xi's Discourses on Family Education, Virtues, published in 2021, contains a series of reports, speeches, conversations, and other documents of Xi's family education and virtues from 2012 to 2020 (Xinhua Net, 2021). Xi's family education and virtues is considered to be the guiding ideology for all Chinese people to study family education and virtues identity (Feng & Huang, 2020). This guiding ideology is considered to be the foundation of the construction of family education and virtues in the new era of China, and the promotion of the new version of socialist civilization. Therefore, building family education and virtues identity (FEVI) is regarded as an inevitable requirement for Chinese college students in the current political environment in China.

The core of national confidence in China today lies in the "four confidences", namely: path confidence, theoretical confidence, system confidence, and cultural confidence. It was proposed by Xi in 2016 (Yu, 2021). The mainstream ideology of the "culture of socialism with Chinese characteristics," as the superstructure of ideas, plays an important guiding role in the political superstructure such as institutions, state power institutions, and political parties (Zheng, 2022). China has been continuously strengthening the political education of cultural confidence among college students, which is designed to help guide them to adhere to the political stance that Chinese mainstream society believes is correct, i.e., to learn to maintain the political sobriety that the Chinese mainstream society believes important to be in a multicultural environment, enhance their attention and sense of identity to the socialist cause, and enhance social responsibility. Therefore, to study the cultural confidence of college students from an empirical perspective can more effectively evaluate the cultural confidence of Chinese youth under the current comprehensive moral education policy in China.

Globalization, modernity, and disparities in wealth and education levels made the trust between the upper and lower classes of society gradually disconnect (Frederiksen et al., 2016). The Olympic Games have the potential to release national pride to enhance the cohesion within the country, and promote the harmonious coexistence of different civilizations (Xu, 2006). Therefore, this study refers to the concept of out-group trust. Trust has been shown to be important for developing positive intergroup relationships (Kramer & Carnevale, 2003). That is, trust may encourage more cooperation and communication with outgroups (Hewstone et al., 2006), laying the foundation for national unity. However, outgroup trust is difficult to cultivate (Cook et al., 2005). Therefore, through the research on the current family education and virtues identity, cultural confidence and out-group trust of Chinese university students, this research explored the construction of Chinese-style family education and virtues identity and cultural

confidence, whether it can build stronger trust between Chinese university students to groups and other parts of Chinese society, so that they can continue to connect with each other.

Literature review

Beginning in 2017, the Chinese government has entered a comprehensive implementation period of emphasizing and implementing moral education policies (Eryong & Li, 2020). China is currently actively learning about Xi's guiding ideology of education on family, family education, and virtues (Feng & Huang, 2020). Xi has particularly emphasized the role of parents as role models in family education, believing that the family is the first school of a child's life, and parents are the child's first teacher (Eryong & Li, 2020). Studies have also shown that positive relationships with family, friends, and school staff are consistently associated with good health and well-being during adolescence (Moore et al., 2018), and that adolescent growth is influenced by the family environment (Soh et al., 2018). An important goal of family education is to develop an individual's personality and moral values, to understand the traditions of the society in which they live, and to have insight into other cultures. Another purpose of family education is to pass on to the next generation what is most valuable in the particular national cultural environment (Ranka, 2022). Contemporary education focuses more on acquiring practical market-oriented skills, ignoring the education and inheritance of cultural values (Yang, 2020). Therefore, in addition to the academic knowledge obtained from school, the construction of family education and virtues is crucial to complement the complete educational system (Kanaiaupuni et al., 2017).

Research on out-group trust stems from the research of inter-group trust. Individual cognition, behavior, and decision-making are all affected by the environment (Foddy et al., 2009). Under the influence of the internet (Junglas et al., 2007) and the Covid 19 pandemic (Ohme et al., 2020), the relationship between people has become less familiar, and the sense of identity has gradually weakened. The online world is a complex social system, and the role of trust can reduce the complexity (Junglas et al., 2007). The formation of trust in life is determined by the identity of the individual (Junglas et al., 2007). People tend to have low trust in outgroups, that is, in group members made up of others. Outgroup trust focuses on whether a person trusts strangers or people who are otherwise different from them (Kramer, 2018). Delhey et al. (2011) made a more specific distinction between in-group and out-group trust, referring to trust in familiar people as in-group trust, and trust in unfamiliar people as out-group trust, and emphasizing familiarity should not focus on a relationship with a particular person, but a generalized other person. Research evidence suggests that high levels of social trust have positive effects on society and individuals (Taylor et al., 2022). Out-group trust has a significant impact on adolescents' support for peace, and the cultivation of out-group trust is an important basis for adolescents to support peace (Noor et al., 2015). Therefore, studying out-group trust has positive meaning for Chinese university students to enhance out-group trust in other parts of Chinese society and support ethnic unity.

From the relationship between education and trust, trust strength and radius are widely believed to be influenced by educational level (Zmerli & Hooghe, 2013). According to the

success and well-being theory, having a higher education level increases trust in all types of social relationships (Newton, 2004). Therefore, this study established the variable of university degree and the variable of major as antecedent variables. Trust is also thought to be linked to family socioeconomic status and education level, and trust is built by parents in early childhood (Uslaner, 2011). People with high levels of trust tend to have highly educated parents, and parents have a positive impact on children's education, which is thought to be an indirect intergenerational influence stemming from education (Frederiksen et al., 2016). As Dinesen and Bekkers (2017) point out, childhood experiences may influence trust, which then remains stable throughout adulthood. Some researchers believe that education will improve the individual's self-reflection ability, and it is easier to generate trust support for unknown compatriots (Giddens, 1991). In this study, according to the definition of outgroup, trust in unknown others is outgroup trust. At the same time, shifting from a narrow worldview to one that accepts and trusts complex social relationships will increase the level of general trust (Delhey et al., 2011), and this is considered to be consistent with the values in the construction of family education and family virtues in China. At the same time, trust is affected by region, because in rural areas, people have higher levels of trust, whereas in urban areas, trust is lower (Putnam, 2020). Based on this, it can be seen that the sense of identity with family education and family virtues can be used as the basis for the development of outgroup trust. Ideally, through the continuous deepening of family education and virtues construction, outgroup trust can be raised to a new height.

Cultural confidence has become an important quality that Chinese university students need to actively improve (Wang, 2022). China's family education and virtues are not only believed to have a positive impact on cultural confidence, but can also effectively transmit and spread cultural confidence into the lives of every Chinese citizen (Xia & Zhu, 2022). This stems from the fact that in Chinese culture, precepts and deeds are based on their strong moral appeal, which has been the main method of knowledge and cultural inheritance for a long time (Huang & Dai, 2015). Therefore, cultural education from family and community can enhance adolescents' social emotions, including self-worth, cultural identity, and sense of belonging (Kanaiaupuni et al., 2017). Through education, individuals can build self-esteem, build confidence in the world and society, and understand inner desires (Jaaffar et al., 2019). Confident individuals are those who have the ability to make choices and decisions about actions based on a stable life foundation, free from unhelpful external influences or distractions (Wehmeyer, 1996). Similarly, Chinese researchers believe that good family education and virtues can help university students develop cultural confidence to resist what are considered bad ethos and values by mainstream Chinese society (Ding & Ma, 2022; Xia & Zhu, 2022). Therefore, the construction of family education and virtues identity has an important impact on cultural confidence.

If an individual feels respected by the ingroup, it will bring a secure sense of identity with group membership (Postmes & Branscombe, 2002), in other words, when the cultural confidence of university students reaches a certain level, they will mentally convert the outgroups originally regarded as other parts of China into ingroups. According to social-social-

cognitive-motivational theory (SSCMT), parents, educators, and the mass media are key to the development of social and national identity, and parents, in particular, are key to adolescent development (Quintana & McKown, 2010). SSCMT also proposed that social cognition and motivation can affect adolescents' intergroup attitudes (Degner & Dalege, 2013). To sum up, the family view of family education and virtues construction, the social view of cultural confidence, and the ethnic view of out-group trust constitute a progressive relationship for analysis in this study.

Hosting large-scale sporting events requires long-term support from the host site, promotes urban transformation, and increases public trust (Ribeiro et al., 2020). Key events amplify cultural and ethnic identity (Yang, 2016). As one of the major key events in China, the core values of the Olympic Games are "peaceful competition", "friendship", "role models", "responsibility", "respect", "bringing cultures together", "team spirit", "fair play", "striving for excellence", "sustainability", etc. (Schnitzer et al., 2018). It can be seen that the Olympic Games are committed to having a positive impact on the family, society, and national views of the people as a whole, especially those people born in the venue (Lau et al., 2010). Zheng (2022) concluded that the 2021 Tokyo Olympics was like a catalyst that deepened the original out-group trust level of the Chinese people, that is, after the Tokyo Olympics, they showed more trust in the countries they originally trusted, while they developed more distrust of countries that they did not trust. Therefore, as a key event for China in 2022, this paper analyzed whether the Beijing Winter Olympics could play a role in regulating the people's family education and virtues, culture confidence, and out-group trust.

Conceptual framework

According to the theoretical analysis, this study established a research model as shown in Figure 1:
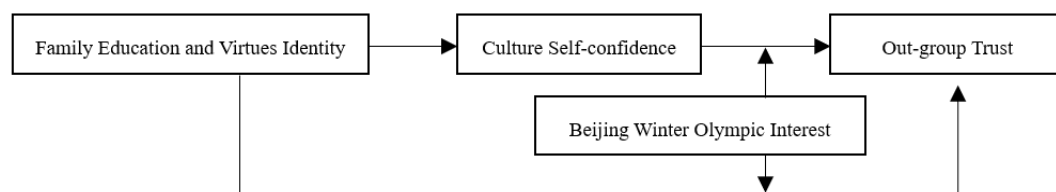
Figure 1 Conceptual Framework

Research method

Research sample

In this study, stratified random sampling was used for sample selection, according to the stratification of China's three major economic belts (Crane et al, 2018), which are the eastern, central, and western regions of China. Considering the cost and efficiency of this data survey across regions, this survey selected the eastern region as represented by the city of Ningbo, the central area as represented by the city of Changsha, and the western areas

represented by the city of Xi'an. A survey was conducted on the basic demographic information, family education and virtues, cultural confidence, outgroup trust, and interest in the Winter Olympics among university students in the three regions. The data were collected through online and paper questionnaire, and the services of an online and offline data collection agency was employed in the data collection process from February 21, 2022, the end date of the Beijing Winter Olympics, to March 7. A total of 815 questionnaires were received from university students, of which 790 were valid, and the effective recovery rate was 97%. Among the 790 respondents, 822 (42.3%) were male and 474 (57.5%) were female; 306 (37.2%) were college students, 330 (40.1%) were undergraduate students, and 186 (22.6%) were postgraduate students; those who were majoring in the natural sciences were 214 (26.0%), while those majoring in humanities and social sciences were 608 (74.0%); 296 students (36.0%) were in the eastern area, 328 (39.9%) students were in the central area, and 198 (24.1%) students were in the western area.

Research instruments

This study used a completely customized questionnaire. The questionnaire included questions about university students' basic demographic information, family education and virtues, cultural confidence, outgroup trust, and interest in the Winter Olympics. The basic demographic information included their gender, degree, major, and regional location.

To assess the family education and virtues identity, a customized scale was constructed, after discussion with relevant experts in psychology, sociology, and political science. The family education and virtues identity scale was generated, summarized from *Xi's Discourses on Family Education, Virtues* (Institute of Party History and Literature of the CPC Central Committee, 2021), which consisted of basic family education identity, moral education identity, family style identity, leader's moral standard recognition, and socialist civilization identity. The family education and virtues identity scale has 15 items, with items such as "Parents have a great influence on the growth of children and should set an example for children", "Leaders should have a healthy lifestyle", and "In a family, husbands and wives should help each other." Four of the items are rectangular selections. All items of the scale are scored on a Likert-style 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). According to the exploratory factor analysis (EFA), KMO = 0.928, p = 0.0001. After deleting items for which the communalities were lower than 0.40 (Ho, 2016), 12 items were finally retained to form a two-factor structure. The absolute value of each rotated factor loadings was greater than 0.50, and the cumulative percent of variance accounted for was 65.64%. There are six items in each of two factors, among which factor I included the function and importance of family education, and mainly measures the respondents' family education identity; factor II included the characteristics of family virtues, mainly measuring the university students' family virtues identity. The two-factor confirmatory factor analysis results showed that: X^2/df=14.367, NFI=0.933, CFI=0.937, IFI=0.938, TLI=0.899, RMSEA=0.128. The Cronbach's alpha of the family education and virtues identity scale is 0.907.

The cultural confidence scale of university students adopted the Cultural Confidence Scale compiled by Zhou and Bi (2020). The questionnaire contains two factors, namely, cultural praise and cultural pride, and consists of 10 items, such as "I have a positive attitude towards Chinese culture"; "Compared with other cultures, Chinese culture is more open and inclusive"; "Chinese culture is the foundation of personal growth and social development", etc. The scale uses a Likert-style 7-point method, ranging from 1 (strongly disagree) to 7 (strongly agree), with higher scores indicating higher cultural confidence of university students. The two-factor confirmatory factor analysis results showed that: X^2/df = 11.312, NFI=0.953, CFI=0.955, IFI=0.955, TLI=0.892, RMSEA=0.172. The Cronbach's alpha of cultural confidence scale is 0.961.

The Winter Olympics interest question of university students was adapted from the Political Interest Question (Dubois & Blank, 2018). The question used one item, "How interested are you in politics?", and in this study was changed from "politics" to the "Beijing Winter Olympics," namely, "How interested are you in the Beijing Winter Olympics?" The survey uses a 4-point Likert scale, ranging from 1 (not at all interested) to 4 (very interested). The higher the score, the higher the interest of the university students in the Winter Olympics.

According to Delhey et al. (2011) concerning the distinction between in-groups and out-groups of intergroup trust, in this study, the area of the population that university students are mainly familiar with is defined as the in-group, and the range of people unfamiliar with other parts of China is classified as the out-group. The out-group trust scale of university students adopts the out-group trust scale used by Noor (Noor et al., 2008). The scale has six items, four of which are positive and two are negative. The objects in the scale were changed to other parts of China, such as "I think people in other parts of China are fair" and "People only see their own good." The scale adopts the Likert-type 5-point method, and the higher the score, the higher the out-group trust of the university students. The Cronbach's alpha of out-group trust scale is 0.882.

Statistical analysis

This study mainly used SPSS for data entry and statistical analysis. Descriptive analysis was used to analyze the demographic information. Independent samples t-tests and one-way ANOVA were used to analyze the level of family education and virtues identity, cultural confidence, out-group trust, winter Olympic interest, and their influencing factors. Correlation analysis was used to analyze the relationship between the respondents' family education and virtues identity, cultural confidence, and out-group trust. Structural equation modeling of the mediating role of cultural confidence between family education and virtues identity and outgroup trust was conducted by using AMOS. Finally, a regression model was established, with age, education, major, and location as control variables, family education and virtues identity as independent variables, cultural confidence as mediator variables, out-group trust as dependent variables, and Winter Olympics interest as the moderator variable. Three groups of models were established by regression analysis. Group 1 was used to verify the direct effect of family education and virtues identity on out-group trust, group 2 was used to verify the

mediating effect of cultural confidence, and group 3 was used to analyze the moderating effect of Winter Olympics interest.

Results

Difference tests analysis

According to the statistical results shown in Table 1, university students' family education and virtues identity (M=93.93, SD=10.05), cultural confidence (M=59.81, SD=9.08), out-group trust (M=21.55, SD=6.07) and Winter Olympics interest (M=2.58, SD=1.10) were all in the upper-middle range. Through post-hoc test analysis, females were found to have significantly higher average levels in family education and virtues identity and out-group trust ($p<0.001$); postgraduate students scored significantly higher than undergraduates ($p<0.001$) on each tested dimension, and undergraduates were significantly higher than junior college students ($p<0.001$); the scores of university students majoring in humanities and social sciences were significantly higher than those of natural science students in each tested dimension ($p<0.001$); university students in the central region scored significantly higher on family education and virtues identity, cultural confidence, and outgroup trust than those in the eastern and western regions ($p<0.001$), while those in the eastern region scored significantly higher on interest in the Winter Olympics than the other two regions. ($p<0.001$).

Table 1 Difference test statistics of university students' out-group trust and other variables

	FEVI M(SD)	CECI M(SD)	OGTR M(SD)	WIOG M(SD)
Gender				
Male	92.95(9.98)	59.91(9.29)	21.05(6.23)	2.54(1.17)
Female	94.64(10.05)	59.74(8.93)	21.91(5.93)	2.60(1.04)
	$t=2.386^*$	$t=0.265$	$t=1.994^*$	$t=0.815$
Degree				
College	88.42(9.44)	56.37(8.44)	18.87(5.51)	2.08(0.97)
Undergraduate	95.44(9.40)	60.61(8.71)	22.01(5.70)	2.68(1.02)
Postgraduate	100.29(7.00)	64.01(8.62)	25.14(5.52)	3.22(1.06)
	$F=110.059^{***}$	$F=48.815^{***}$	$F=74.808^{***}$	$F=76.255^{***}$
Major				
Natural Science	82.59(6.15)	49.40(7.63)	15.62(4.38)	1.33(0.51)
Humanities & Social Sciences	97.92(7.87)	63.47(6.27)	23.63(5.14)	3.02(0.89)
	$t=25.842^{***}$	$t=26.606^{***}$	$t=20.373^{***}$	$t=26.266^{***}$
Location				
Eastern	89.70(11.01)	57.57(9.82)	19.95(6.36)	2.89(0.97)

	FEVI M(SD)	CECI M(SD)	OGTR M(SD)	WIOG M(SD)
Central	96.65(8.40)	62.71(7.01)	23.38(4.83)	2.64(0.70)
Western	95.73(8.92)	58.36(9.69)	20.91(6.68)	2.58(1.10)
	$F=45.951^{***}$	$F=30.267^{***}$	$F=28.017^{***}$	$F=34.781^{***}$

Note: FEVI is family education and virtues identity, CECI is cultural confidence, OGTR is out-group trust, WIOG is interest in the Winter Olympic; *$p<0.05$, **$p<0.01$, ***$p<0.001$

Correlation analysis

In this study, the total score of each scale was used as a variable, and Pearson correlation analysis was carried out on family education and virtues identity, cultural confidence, and outgroup trust. As shown in Table 2, it was found that family education and virtues identity was positively correlated with cultural confidence (r=0.849, $p<0.001$) and outgroup trust (r=0.893, $p<0.01$); cultural confidence was positively correlated with outgroup trust (r=0.900, $p<0.001$).

Table 2 Correlation analysis of family education and virtues identity, cultural confidence and out-group trust

|	1	2	3	4	5	6	7	8
1.GEN	1.000							
2.DEG	-0.048	1.000						
3.MJR	0.008	0.309^{***}	1.000					
4.LOC	0.182^{***}	0.083^{*}	0.241^{***}	1.000				
5.FEVI	0.083^{*}	0.457^{***}	0.670^{***}	0.254^{***}	1.000			
6.CECI	-0.009	0.326^{***}	0.681^{***}	0.066	0.849^{***}	1.000		
7.OGTR	0.070^{*}	0.393^{***}	0.580^{***}	0.091^{**}	0.893^{***}	0.900^{***}	1.000	
8.WIOG	0.028	0.396^{***}	0.676^{***}	0.183^{***}	0.805^{***}	0.842^{***}	0.806^{***}	1.000

Note: 1=gender, 2=education, 3=major, 4=location, 5= family education and virtues identity, 6=cultural confidence, 7=out-group trust, 8=interest in the Winter Olympic; *$P<0.05$, **$P<0.01$, ***$P<0.001$

Structural equation modeling analysis

This study established a relational model of family education and virtues identity, cultural confidence, and out-group trust through AMOS. The revised model fitness results showed that X^2/df=2.624, GFI=0.770, AGFI=0.723, CFI=0.909, NFI= 0.862, TLI=0.898, RMSEA=0.088. Each fitting index is close to the optimal fitting standard. The parameters are shown in Figure 1. The results showed that family education and virtues identity positively affects out-group trust (β=0.583, S.E. =0.090, $p<0.001$); family education and virtues identity

positively affects cultural confidence (*β*=0.847, S.E.=0.075, *p*<0.001); and cultural confidence positively affects out-group trust (*β*=0.379, S.E.=0.082, *p*<0.001). Therefore, cultural confidence has a significant partial mediation effect.
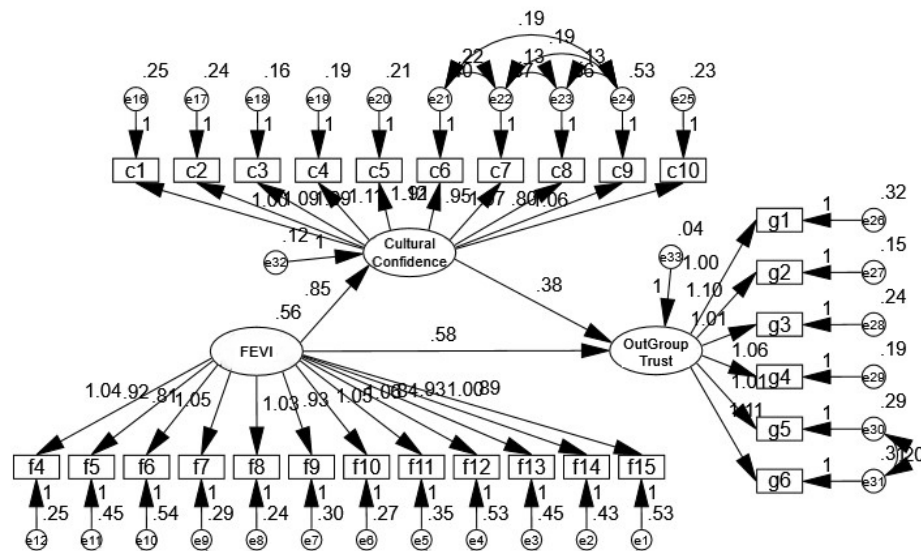
Figure 2 The model of family education and virtues, cultural confidence, and out-group trust

Regression analysis

Before performing the regression analysis, the data was standardized, and after multicollinearity diagnosis, the results meet the preconditions for regression analysis (Ho, 2016). Model 1 is established by adding control variables and independent variables. The results in Table 3 show that family education and virtues identity (*β*=0.949, *p*<0.001) can significantly and positively predict out-group trust. Based on correlation and regression analysis results:

Hypothesis 1 was supported, that is, family education and virtues identity have a significant positive impact on out-group trust.

For the mediating effect shown in Figure 2, model 2 was established with family education and virtues identity as independent variables, model 3 was established with cultural confidence as independent variables, and model 4 was established by adding family education and virtues identity and cultural confidence. The results show that family education and virtues identity (*β*=0.791, *p*<0.001) can significantly and positively predict cultural confidence; cultural confidence (*β*=0.922, *p*<0.001) can significantly positively predict out-group trust; adding cultural confidence, family education, and virtues identity (*β*=0.949, *p*<0.001) still had a significant effect on out-group trust. Comparing Model 1 and Model 4, it shows that cultural confidence plays a partial mediating role. Based on correlation analysis, structural equation model analysis and regression analysis:

Hypothesis 2 was supported, that is, cultural confidence has a mediating effect between family education and virtues identity and out-group trust.

In order to verify the moderating effect, model 5 was established by adding the moderator variable interest in Winter Olympics, model 6 was established by adding moderator variables and the interaction terms with family education and virtues identity, and model 7 was established by adding moderator variables and the interaction terms with cultural confidence. The results show that Winter Olympics interest has a significant positive predictive effect on out-group trust (β=0.074, p<0.001); the interaction term regression coefficient of winter Olympic interest and family education and virtues identity is significant (β=0.073, p<0.001)); the interaction term regression coefficient of Winter Olympics interest and cultural confidence was significant (β=0.121, p<0.001). At the same time, ΔR^2 (p<0.001) both reached significance after the interaction term was added to model 6 and model 7 respectively. Based on regression analysis:

Hypothesis 3a was supported, that is, university students' Winter Olympics interest has a moderating effect between family education and virtues identity and out-group trust.

Hypothesis 3b was supported, that is, university students' Winter Olympics interest has a moderating effect between in cultural confidence and out-group trust.

Table 3 A sequential test of direct, mediating, and moderating effects

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
1.GEN	0.017	-0.050***	0.080***	0.045***	0.044***	0.041***	0.052***
2.DEG	-0.024	-0.093***	0.123***	0.027*	0.021	0.018	0.010
3.MJR	-0.013	0.221***	-0.093***	-0.135***	-0.144***	-0.117***	0.106***
4.LOC	-0.148***	-0.171***	0.028	-0.054***	-0.058***	-0.037**	-0.033
5.FEVI	0.949***	0.791***		0.550***	0.501***	0.503***	0.447***
6.CECI			0.922***	0.514***	0.508***	0.559***	0.664***
7.WIOG					0.074**	0.019***	0.014**
WIOG*FEVI						0.073***	
WIOG*CECI							0.121***
R^2	0.818	0.781	0.832	0.885	0.886	0.889	0.892
ΔR^2						0.003***	0.007***

Note: 1=gender, 2=education, 3=major, 4=location, 5= family education and virtues identity, 6=cultural confidence, 7=Winter Olympic interest; *P<0.05, **P<0.01, ***P<0.001

Discussion

The level of family education and virtues identity of college students surveyed in this study is consistent with the upper-middle level reported in the 2019 National Family Education and Virtues Survey (Gao, 2021). At the same time, the annual report pointed out that undergraduates have a higher understanding of family virtues than college students and postgraduates (Gao, 2021), which is inconsistent with this research. Women showed more

emphasis on family education and virtues construction than men, which is consistent with this research. This research argues that family virtues are only a part of family education and virtues; under comprehensive consideration, family education and virtues identity should deepen with the growth of university degrees. At the same time, the survey results of this research showed that the overall cultural confidence of university students is consistent with the survey results of cultural outlook and cultural literacy in 2020 (Li, 2022). It can be seen that Chinese college students have maintained a high level of family education and virtues identity and cultural confidence in recent years, affirming the recognition of family education and family virtues identity and cultural confidence education and cultivation of college students by families, society, and the country. He et al. (2021) found that there was no significant difference between gender in the cultural confidence level of adolescents, but there was a significant difference in the grade variable, which was consistent with the results of this study. But adolescents' cultural confidence decreases with grade, which is inconsistent with this paper. Therefore, this study believes that social contact and university education are more conducive to the construction of cultural confidence than the environment of secondary schools. Therefore, the family education and virtues identity of adolescent secondary schools should be strengthened to make up for the lack of an environment of cultural confidence.

University students in the eastern region scored significantly lower than those in the central and western regions on family education and virtues identity, cultural confidence, and out-group trust. The eastern region is economically developed and has many channels of contact with foreign cultures. Facing the situation of cultural diversity in the region, it has an impact on the values of university students. According to the positive relationship between family education and virtues identity and cultural confidence verified in this study, families and schools can establish a correct sense of cultural value identity for them and deeply understand cultural connotations, thereby enriching and enhancing the cultural confidence of these university students, to help them deeply understand the cultural connotation, and can enrich and enhance the cultural confidence of university students so as to achieve the expectations of the Chinese government.

The overall level of outgroup trust is consistent with the 2020 Social Trust Survey (Wang & Chen, 2020). There is a significant difference in the degree of education. The higher the degree of education, the higher the trust of the out-group. It is further confirmed that the educational level proposed by Newton (2004) increased trust in all types of social relations. This study finds that out-group trust is affected by regions, combined with the provincial GDP comparison of the three regions surveyed, the results cannot reflect the conclusion of Putnam (2020).

Before the Beijing Winter Olympics, with the expansion of leisure activities including the Internet, music, and video games, the Olympic Games were considered to be less and less popular among younger audiences (Chang, 2016). However, among the sample of 790 students counted in this paper, those who were interested and very interested account for a total of 55.47%. As a major country participating in the Summer Olympics, China's enthusiasm and participation in the Winter Olympics is often at a lower level than for the Summer Olympics.

Judging from the frequency of interest in the Beijing Winter Olympics in this study, college students showed a very positive attitude towards the Beijing Winter Olympics. Judging from the positive moderating effect of the Winter Olympics interest on family education and virtues identity, cultural confidence, and out-group trust, college students' family education and virtues identity, cultural confidence and out-group trust have all been improved. The performance of Chinese netizens during the period can also verify this research result. Taking the Internet environment of the Tokyo Olympics and the Beijing Winter Olympics as an example, during the Tokyo Olympics, many Chinese Olympic champions were attacked by the Internet netizens (Zheng, 2022). Out-group prejudice was manifested when the interests of the out-group were different from those of the in-group. None of this should happen in a country with high cultural confidence. During the 2022 Beijing Winter Olympics, although cyber violence did occur, there were more voices full of warmth, encouragement, and pride. This shows that the Beijing Winter Olympics had a positive impact on Chinese netizens.

Conclusion and recommendations

This paper analyzed out-group trust and related influences and relationships among Chinese university students. The findings of this study showed that family education and virtues identity had a positive effect on out-group trust; cultural confidence played a partial mediating role in the relationship between family education and virtues identity, and out-group trust; interest in the Winter Olympics effectively regulated the relationship between family education and virtues, cultural confidence, and out-group trust.

The survey results of this study also showed that university students majoring in the natural sciences had average scores that were significantly lower than those majoring in the social sciences in family education and virtues, cultural confidence, and out-group trust. Therefore, this study suggests that the construction of programs for developing family education and virtues and cultural confidence should be fully integrated into multi-disciplinary and multi-field teaching work. For example, Weinschenk & Dawes (2019) found through multidisciplinary research that social trust is 30% heritable. Through multi-disciplinary and cross-field cooperation, it cannot only enrich the theory and practice of family education and virtues, cultural confidence, and out-group trust, but also integrate these into university students in various disciplines and fields, cultivate interest, and explore research, so as to effectively improve the social outlook and national outlook of natural science undergraduates.

In addition, Chinese researchers have the responsibility to show the real impact of the Olympic Games hosted by China to the world, which not only demonstrates China's ability to host large-scale sporting events, but also responds to the concept of Olympic heritage (Ribeiro et al., 2020). Therefore, in addition to news reports and special comments, Chinese researchers from all walks of life should proceed from an empirical perspective, scientifically explore and confirm the real impact of the Olympics on China, and use data to show the world the real situation of China's people's livelihood development.

Universities can play an important role in supporting university students towards developing positive out-group trust that increases their national identity. Wei et al. (2017)

proposed that intergroup contact has a significant direct effect on out-group trust. Combined with the family education and virtues identity and cultural confidence of this study, these effective influencing factors can be fully utilized to enhance out-group trust. For example, projects can be organized to build awareness of interactions between different groups of university students and increase their awareness of other areas. By implementing these programs, they can learn about the superiority and uniqueness of Chinese culture. When students have a full understanding of cultural confidence, they will be more tolerant and trusting of other outgroups. Community service is another area of the curriculum that can help instill and nurture family education and virtues and cultural confidence. Community service can be an important part of civic education, including activities that emphasize values such as family harmony, which can help promote the value of solidarity and trust among youth (Idris et al., 2012).

With the 2022 Beijing Winter Olympics as one of the key events, this study found that the interest in the Winter Olympics had a positive moderating effect on family education and virtues, cultural confidence, and out-group trust. The Beijing Winter Olympics are just the beginning of China's big events scheduled for the 2020's. Studies have shown that government intervention during the Olympics increased interest in the Olympics (Schnitzer et al., 2018). Based on the effectiveness of the intervention and the moderating role of the competition, educational institutions should fully recognize the major impact that key events may have on university students, and give them adequate attention, preparation, and practice. Especially for the new generation of young people who are proficient in social media (Bennett et al, 2006), online public opinion has a significant positive impact on university students' values (Wei & Xiu, 2022). Therefore, it is necessary to make timely use of the media's early work on publicity and actively capture the positive impact of the news activity process, so that university students' family education and virtues, cultural confidence, and out-group trust can benefit from real experience from practice.

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