
The Relationship between Conspicuous Consumption and Ethical Behaviors of College Students: Value Orientation as the Mediator

Authors' contributions

This work was carried out in collaboration between both authors. Author LD designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author SG managed the analyses of the study and managed the literature searches. Both authors read and approved the final manuscript

Abstract:

Young college students are the pillars of the development of the state and society, and their growth concerns the future of the state. However, with the further development of the Chinese economy, college students' consumption awareness has shifted from initial need-based consumption to sociative and conspicuous consumption, which could possibly result in non-ethical consumption behaviors. Therefore, studying the relationship between conspicuous consumption and ethical behaviors, as well as the factors that influence this relationship, is of great significance for the healthy growth of college students.

This study examined the relationship between conspicuous consumption and ethical behaviors of college students and included collectivism and individualism, which are key factors affecting personal value orientation in Chinese society, as moderating variables in the research model. Collectivism refers to a cultural orientation where individuals prioritize the group's interests over personal gains, while individualism emphasizes personal goals and independence. It was found that conspicuous consumption was negatively correlated with college students' ethical behaviors. Collectivist values can weaken this relationship, while individualist values strengthen it. Finally, possible factors contributing to this relationship were proposed in the conclusion, along with suggestions on how to reduce non-ethical behaviors among college students.

Keywords: Ethical Behaviors; Conspicuous Consumption; Collectivism; Individualism

1. Introduction

The rapid development of the global economy and the advent of consumption upgrading have made conspicuous consumption increasingly prevalent. Veblen [1] originally defined conspicuous consumption as the act of buying expensive and publicly visible products to display social status. With the expansion of social needs, conspicuous consumption now also fulfills individual needs such as improving self-esteem and enhancing social status [2][3][4][5].

According to Festinger's theory of social comparison [6], individuals subconsciously compare themselves with others, and this behavior is particularly pronounced among college students who share a "youth circle culture." Within these social circles, similar preferences and behaviors are common, leading to a greater propensity for conspicuous consumption. Lai [7] discovered that post-90s college students in China exhibit a mentality of comparison and hedonism, which manifests in behaviors such as spending beyond their means, and purchasing luxury and branded products. For instance, a student from a university's School of Finance and Economics borrowed 100,000 yuan through campus loans to purchase luxury goods, which ultimately led to debt and academic difficulties. This behavior, driven by the psychology of conspicuous consumption, not only affects the students themselves but also potentially leads to unethical behaviors [8][9][10].

Numerous studies have supported the existence of a causal relationship between conspicuous consumption and unethical behaviors. Peattie [11] found that individuals who are wasteful in daily life tend not to prioritize green products when shopping. Choi and Lee [12] discovered that individuals enthusiastic about buying high-end animal leather products have a lower desire for environmental protection compared to those who use artificial leather products.

Value orientation, particularly, plays a crucial role in influencing ethical behaviors. It includes orientations towards interpersonal relationships, internal features of humanity, and natural relationships. Generally, value orientation refers to an individual's viewpoints on external things or behaviors [13]. For example, people with a hedonistic orientation may exhibit more destructive, unethical behaviors [14]. Conversely, Bailey and Scheepers [15] found that prosocially oriented individuals in the workplace pay more attention to the growth of employees or subordinates.

In personal value orientation, those who are overly focused on their own interests tend to prioritize self-interests in conflicts between self and group interests. On the other hand, individuals with a collectivist tendency prioritize external interests, which aligns with traditional Chinese Confucian culture. Hofstede [16] identified collectivism and individualism as key dimensions of personal value orientation. Collectivism and individualism reflect the degree to which an individual identifies with and shows concern for society [17]. In China, a country deeply influenced by Confucian culture, collectivism has long been a significant value [18]. Group-oriented individuals tend to prioritize the feelings of their group and are more likely to engage in prosocial behaviors.

This study aims to examine the moderating effect of collectivism and individualism on the relationship between conspicuous consumption and ethical behaviors. While many studies have explored the direct effect of value orientation on ethical behaviors, our study focuses on how different value orientations impact the relationship between conspicuous consumption and ethical behaviors. Guo and Xiao [19] found that people with a collectivist orientation have a stronger sense of moral identity. In another study, Baumann et al. [20] found that group-oriented people are more inclined to consume organic food because they believe it helps protect the environment and supports the local economy. However, the impact of value orientation as a moderating factor remains underexplored.

Based on Hofstede's [16] theory of cultural dimensions and Festinger's [6] theory of social comparison, this paper establishes a research model to investigate the effects of collectivism and individualism on conspicuous consumption and ethical behaviors. The main research questions are:

- (1) What is the impact of conspicuous consumption on the ethical behaviors of college students?
- (2) How do collectivism and individualism moderate the relationship between conspicuous consumption and ethical behaviors?

By addressing these questions, this study seeks to contribute to the understanding of how value orientations influence the ethical behaviors of college students in the context of conspicuous consumption.

2. Research Hypotheses

2.1 The Relationship between Conspicuous Consumption and Ethical Behaviors

Today, the living standards of college students have gradually risen. Due to excessive indulgence from their parents, students' demands are often met without hesitation, which can easily result in a mentality of comparison among them. According to Festinger's theory of social comparison [6], individuals subconsciously compare themselves with others. If they perceive themselves as inferior to those they compare themselves with, they may experience dissatisfaction, low self-esteem, and jealousy [21]. This tendency leads to individual vanity. Netemeyer et al.[22] noted that vanity can significantly affect consumption behaviors, with individuals who have higher levels of vanity being more likely to engage in conspicuous consumption. In the context of "college students' circle culture," vanity and the need for social recognition drive students to pursue material possessions as a means of gaining social status [23]. Materialistic values emphasize the importance of material possession and satisfaction through overconsumption [24].

In the current economic context, conspicuous consumption driven by peer pressure has led to significant waste in society. According to Veblen's [1] theory of conspicuous consumption, individuals purposefully consume luxury goods in public to enhance or maintain their social status. This type of consumption poses ecological hazards and is widely considered a major contributor to today's ecological collapse [25][26]. The excessive acquisition and destruction of natural resources due to conspicuous consumption harm the environment. Furthermore, individuals who adhere to conspicuous consumption are less likely to engage in ethical consumption behaviors and may even participate in unethical behaviors.

Therefore, based on the above discussion, we propose the following hypothesis:

H1: There is a positive correlation between conspicuous consumption psychology and non-ethical consumption behaviors of college students.

2.2 The Moderating Effect of Collectivism/Individualism

Based on the above hypothesis, we found that a person's conspicuous consumption

psychology can influence their ethical behaviors. However, these behaviors can be moderated by other factors, particularly in China, which has long been influenced by Confucian thoughts [27]. Confucian thoughts have a long-term effect on personal behaviors. For example, Huang et al. [28] found through their survey of Taiwanese consumers that individuals with higher Confucian motivation had lower tolerance for immoral behaviors. The Confucian motivation here refers to the long-term orientation in Hofstede's [16] theory of cultural dimensions, similar to the collectivist orientation described in our study, emphasizing social benefits and sustainable societal development [29]. People with conspicuous consumption psychology tend to value hedonic consumption, seeking immediate gratification [30][31].

Regarding personal value orientation, the most important ones are collectivism and individualism. Individuals with an individualistic orientation perceive themselves as autonomous and independent entities, while those with a collectivistic orientation view themselves as interconnected with the larger whole [32]. Collectivism emphasizes the interconnection between individuals and the external world, considering individuals as part of a larger community, which underscores the importance of virtue and adherence to rules [33]. Consumers with a higher collectivist tendency may be more sensitive to ethical issues than those with an individualist tendency [34]. Therefore, we infer that groups with a higher collectivist tendency are more sensitive to moral issues.

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

H2a: Collectivist orientation negatively moderates the relationship between conspicuous consumption psychology and non-ethical consumption behaviors.

H2b: Individualist orientation positively moderates the relationship between conspicuous consumption psychology and non-ethical consumption behaviors.

By examining the above hypotheses, we aim to understand the relationship between conspicuous consumption psychology and ethical behaviors, and how this relationship is affected by value orientations such as collectivism and individualism. To ensure the effectiveness of questionnaire items, the design drew on established concepts from previous studies. For items related to conspicuous consumption psychology, we primarily adopted Veblen's theory of conspicuous consumption. For items on value orientations, we referred to Hofstede's [16] theories on collectivism and individualism.

For items on ethical behaviors, we employed the ethical model proposed by Hunt and Vitell [35].

The following figure shows the research model proposed in this study.

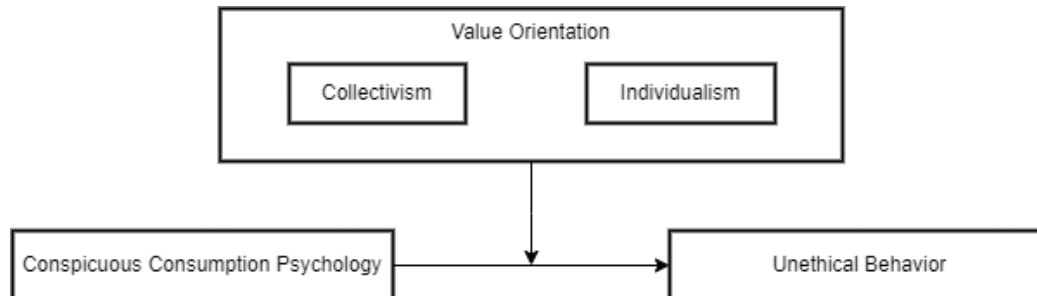


Fig. 1 Research Model

2.3 Sampling Method

The design of questionnaire items drew upon established questionnaires and related theories from previous studies, utilizing a 7-point Likert scale. We conducted a sampling survey at three universities: Zhejiang University of Technology, Zhejiang Sci-tech University, and Zhejiang Gongshang University. The sampling method was systematic random sampling, selecting every N-th passerby for the survey, where N was randomly determined by a trained investigator. The main reason for choosing these universities was that they are key institutions in Zhejiang Province, and students from these universities may have a stronger awareness of ethical consumption.

A total of 466 questionnaires were collected, with 445 valid questionnaires remaining after eliminating 21 invalid ones. The main analytical methods adopted in this study included descriptive analysis, reliability and validity analyses, confirmatory factor analysis (CFA), and structural equation modeling (SEM) to empirically analyze the hypothesized conditions.

3. Case Study and Data Description

3.1 Description of the Case Study

This research investigates the conspicuous consumption behaviors and ethical tendencies of college students at three prominent universities in Zhejiang Province, China: Zhejiang University of Technology, Zhejiang Sci-Tech University, and Zhejiang Gongshang University. These institutions were selected due to their

significant influence in the region and their diverse student populations, which offer a comprehensive representation for this study.

Conspicuous consumption, first conceptualized by Veblen [36], refers to the purchase of luxury goods and services to display wealth and attain social status. This behavior is particularly pertinent among college students who are at a critical stage of identity formation and are heavily influenced by peer dynamics and societal expectations. The current study aims to explore the correlation between conspicuous consumption and ethical behavior, moderated by value orientations such as collectivism and individualism.

In recent years, the landscape of consumer behavior has evolved significantly, with a noticeable increase in conspicuous consumption among younger demographics. This shift is partly attributed to the proliferation of social media and the digital economy, which have amplified peer influence and societal pressures [37]. College students, immersed in these environments, often equate material possessions with social success and self-worth, leading to behaviors that prioritize appearance over ethical considerations [38].

The selected universities provide a unique context for this study. Zhejiang University of Technology, known for its emphasis on engineering and applied sciences, attracts a student body with diverse economic backgrounds. Zhejiang Sci-Tech University, with its focus on textiles and fashion, offers insights into students who are particularly susceptible to trends and status symbols. Zhejiang Gongshang University, specializing in business and economics, provides a perspective on students who are likely future leaders in the corporate world, where ethical consumption practices are increasingly scrutinized.

The research employs a systematic random sampling method to ensure a representative sample of the student populations at these universities. A total of 466 questionnaires were distributed, and 445 valid responses were collected. The questionnaire design draws on established scales for measuring conspicuous consumption, value orientation, and ethical behavior, ensuring reliability and validity [35][39].

This study's framework is grounded in recent theoretical advancements that highlight the nuanced relationship between consumption behaviors and ethical decision-making.

For instance, recent studies suggest that individuals with high levels of materialism are more likely to engage in unethical behaviors to achieve their consumption goals [40]. Furthermore, the moderating effect of value orientations, such as collectivism and individualism, has been shown to significantly influence this relationship. Collectivist values, which emphasize group harmony and social responsibility, tend to mitigate unethical behaviors associated with conspicuous consumption [41].

By examining the interplay between conspicuous consumption and ethical behaviors within the context of Chinese cultural values, this study contributes to the broader discourse on sustainable consumption and ethical consumerism. The findings are expected to offer valuable insights for policymakers, educators, and business leaders aiming to promote ethical consumption practices among young consumers.

3.2 Map of the Situation

To provide a comprehensive understanding of the geographical and contextual setting of this study, we present a detailed map of the three universities in Zhejiang Province: Zhejiang University of Technology, Zhejiang Sci-Tech University, and Zhejiang Gongshang University. This map serves to contextualize the spatial distribution of the surveyed population and highlights the socio-economic landscape within which these institutions operate.

Zhejiang Province, located on the eastern coast of China, is one of the country's most economically vibrant regions. It is known for its dynamic economy, driven by manufacturing, technology, and trade. The province's educational institutions, particularly the three universities included in this study, play a crucial role in fostering innovation and economic development [42].

Zhejiang University of Technology (ZJUT) is situated in the provincial capital, Hangzhou, a city renowned for its technological advancements and rich cultural heritage. Hangzhou is often referred to as the "Silicon Valley of China" due to its thriving tech industry, spearheaded by companies such as Alibaba. This environment influences the student body's exposure to and engagement with cutting-edge technological developments and consumer trends [43].

Zhejiang Sci-Tech University (ZSTU), also located in Hangzhou, specializes in textiles and fashion. The university's strategic focus on these industries places its

students at the forefront of design and innovation in fashion, making them particularly attuned to conspicuous consumption trends. The fashion industry in Hangzhou, supported by the city's robust e-commerce infrastructure, significantly shapes students' consumption behaviors [44].

Zhejiang Gongshang University (ZJSU), located in Hangzhou's economic hub, emphasizes business and economics education. Its proximity to various financial institutions and multinational corporations provides students with unique insights into the complexities of global markets and ethical business practices. This exposure is critical in understanding how future business leaders perceive and engage in ethical consumption [45].

The following map illustrates the locations of these universities within Hangzhou, highlighting key economic and cultural landmarks that influence student life and consumption behaviors.



Fig. 2 Map of Universities in Zhejiang Province

This spatial analysis is essential for understanding the socio-economic contexts that shape the conspicuous consumption behaviors of the students. Hangzhou's unique blend of traditional culture and modern economic dynamism creates an environment where social status and material success are highly valued [46]. The interactions between students and the city's economic activities provide a fertile ground for studying the interplay between conspicuous consumption and ethical behaviors.

By situating our study within this detailed geographical context, we aim to provide a richer understanding of the factors influencing college students' consumption patterns. This approach not only enhances the validity of our findings but also offers valuable insights for policymakers and educators seeking to address the ethical implications of conspicuous consumption in rapidly developing urban centers.

3.3 Data from the Universities

The data for this study were meticulously collected from three esteemed institutions in Zhejiang Province: Zhejiang University of Technology, Zhejiang Sci-Tech University, and Zhejiang Gongshang University. These universities were strategically chosen due to their academic prestige and their representation of a diverse student demographic, which provides a robust basis for examining the relationship between conspicuous consumption and ethical behaviors among college students.

Data collection was executed through a systematic random sampling method to ensure the representativeness and reliability of the sample. The survey included a total of 466 participants, out of which 445 valid responses were obtained after excluding incomplete questionnaires. The participants were predominantly undergraduates, with a small percentage of postgraduates, ensuring a broad perspective on student behaviors and attitudes.

The questionnaire design incorporated established scales and theoretical frameworks to measure conspicuous consumption, value orientation, and ethical behaviors. The conspicuous consumption scale was adapted from Veblen's [1] seminal work, which has been extensively validated in contemporary research [24][47]. The value orientation scale drew on Hofstede et al. [39] cultural dimensions theory, specifically focusing on collectivism and individualism, which are critical in understanding ethical behaviors in the Chinese context [43]. Ethical behaviors were assessed using the model proposed by Hunt and Vitell [35], a widely recognized framework in marketing ethics [40].

The demographic composition of the sample included a balanced representation of gender, with slightly more female participants than male. The majority of respondents were sophomores and juniors, reflecting the typical age distribution of college students in China. Monthly living expenses varied, providing insights into the economic diversity within the student population. This diversity is crucial for

understanding how economic factors influence consumption behaviors and ethical considerations [48].

Parental occupation data indicated a substantial representation of parents working in education, culture, and health sectors, followed by those in business and governmental positions. This variable is significant as it provides context to the socio-economic backgrounds of the students, which can impact their value orientations and consumption patterns [44].

The collected data underwent rigorous statistical analysis to ensure reliability and validity. Reliability was assessed using Cronbach's alpha, with all scales exceeding the recommended threshold of 0.7, indicating high internal consistency [45]. Validity was confirmed through confirmatory factor analysis (CFA), which demonstrated satisfactory fit indices, ensuring that the constructs measured were robust and accurately represented the theoretical concepts [49].

This comprehensive dataset provides a solid foundation for exploring the intricate relationships between conspicuous consumption, value orientation, and ethical behaviors. By analyzing these variables within the context of Chinese cultural values and economic conditions, this study aims to contribute to the broader discourse on sustainable consumption and ethical behavior in higher education settings. The findings are anticipated to offer valuable insights for policymakers, educators, and business leaders striving to foster ethical consumption practices among young consumers.

4. Model Analysis

4.1 Research Design and Data Collection

This section outlines the methodology used to conduct the research, including the research design, sampling technique, and data collection process.

The study employs a quantitative research design to investigate the relationship between conspicuous consumption and ethical behaviors among college students, with value orientation (collectivism and individualism) as the moderating variable. The research design includes the development and administration of a structured questionnaire to gather data from the target population.

The sampling method used in this study was systematic random sampling, where every N-th passerby was selected for the survey. N was randomly determined by a trained investigator. The survey was conducted at three universities: Zhejiang University of Technology, Zhejiang Sci-tech University, and Zhejiang Gongshang University. These universities were chosen because they are key institutions in Zhejiang Province, and students from these universities are expected to have a stronger awareness of ethical consumption.

The population of this study comprises college students from the aforementioned universities. A total of 466 questionnaires were distributed, and 445 valid questionnaires were collected after eliminating 21 invalid responses. The questionnaire was designed based on a 7-point Likert scale and included items related to conspicuous consumption psychology, value orientations, and ethical behaviors. The data collection process was carefully monitored to ensure accuracy and reliability.

In this study, the questionnaires collected were analyzed using AMOS24 and SPSS22. The following figure shows the results of data analysis.

Table 1 Descriptive Analysis

		Frequency	Percentage
Gender	Male	215	48.3
	Female	230	51.7
Educational attainment	Freshman	23	5.1
	Sophomore	131	29.4
	Junior	263	59.1
	Senior	21	4.7
	Postgraduate or above	7	1.5
Monthly living expense	Below 1,500	123	27.6
	1,500-3,000	231	51.8
	3,000-4,000	61	13.7
	More than 4,000	30	6.6

Occupation of parents	Civil servant	54	12.1
	Science, education, culture and health	145	32.5
	Business owner	24	5.3
	Company employee and worker	181	40.6
	Others	25	5.6
	Freelancer	16	3.5

From the descriptive analysis shown in Table 1, most of the respondents in this questionnaire had an educational attainment of sophomore or junior, and their monthly living expenses were mostly below 1,500 and between 1,500 and 3,000. The occupations of parents were mainly in science, education, culture, health, and company employees. This study mainly dealt with the relationship between conspicuous consumption and non-ethical behaviors. From the living expenses of respondents and the proportion of the occupation of parents, the samples were deemed suitable for the purpose of study. In the next stage, we analyzed the reliability and validity of samples to determine whether the questionnaire satisfied the requirements for further analysis.

4.2 Common Method Variance Analysis

Common method variance (CMV) may occur for data from a single source. CMV can introduce systematic measurement errors and influence the estimation of the relationship between theoretical results and reality, leading to inflation or underestimation, particularly when all variables are measured on a similar scale [50]. To examine CMV in this work, we utilized Harman's One Factor and Single Method-Factor Approaches. When the extracted factors were not rotated, the variance explained by the first factor was 35.461%, which reached the acceptable level declared by Organ et al.[51]. The detection of various constructs showed that their correlations were all lower than 0.9 [52]. However, Harman's [53] One Factor approach was a relatively rough detection method. We incorporated the effect of CMV into the model as a latent variable and examined CMV by comparing the fitting degree between two models. The results showed that the model incorporating the latent variable of CMV performed well in various fitting indices: $\chi^2/df=2.157$,

CFI=0.906, IFI=0.958, RMSEA=0.059. However, through a comparison of the difference between two models in degree of freedom and chi-square value, we found that compared with the model incorporating CMV, the df of the original model grew by 11, while χ^2 only fell by 17.129. This indicates that the fitting degree of the model incorporating the latent variable of CMV was not significantly improved, suggesting that the CMV existing in the measurement of this study was not serious.

4.3 Reliability and Validity Analysis

Reliability analysis is a primary method for testing the reliability and stability of a scale. The most commonly used method for reliability analysis is Cronbach's α . Empirically, if Cronbach's α is greater than 0.9, the internal reliability of the scale is considered very high. If the Cronbach α coefficient is less than 0.7, the scale design is highly problematic and preferably redesigned.

Table 2 Reliability Analysis of the Scale

Scale	Cronbach's α	Number of Items
Conspicuous consumption psychology	0.819	6
Value orientation	0.873	6
Non-ethical behaviors	0.909	6

It can be learned from Table 2 that the values of Cronbach's α in the scale of conspicuous consumption psychology, value orientation, and ethical behaviors were 0.819 at the lowest and all greater than 0.8, indicating good internal reliability. On the whole, the reliability of the dimensions of the questionnaire was very good. A validity analysis was then performed on each scale using confirmatory factor analysis. The results are as follows:

Table 3 Validity Analysis of the Study

Scale	Item	p	Standardized Factor Loading	C.R	AVE
Conspicuous consumption psychology	A1	***	0.780	0.840	0.569
	A2	***	0.757		
	A3	***	0.755		
	A4	***	0.720		
	A5	***	0.735		
	A6	***	0.791		
Value orientation	B1	***	0.764	0.861	0.608
	B2	***	0.808		
	B3	***	0.788		
	B4	***	0.764		
	B5	***	0.821		
	B6	**	0.811		
Non-ethical behaviors	C1	***	0.768	0.847	0.580
	C2	***	0.781		
	C3	***	0.745		
	C4	***	0.751		
	C5	***	0.797		
	C6	***	0.802		

Indices of goodness-of-fit: CMIN/DF=1.830; RMSA=0.050; CFI=0.902

Note: *** represented $P < 0.01$ and ** represented $P < 0.05$

It can be learned from Table 3 that the absolute fitting coefficient CMIN/DF was 1.830, less than 3.0, and the relative fitting coefficients CFI=0.902, RMSA=0.050, all of which met acceptable criteria. On the whole, the model factors fitted well. From the factor analysis results of items in each scale, it was found that all items were above 0.720, greater than the required values, and all the C.R values of four variables

of the model were above 0.7.

Discriminant validity among the variables was tested by evaluating the average variance extracted (AVE) of each variable. The following table shows an analysis of discriminant validity in this study.

Table 4 Discriminant Validity Test

Variable	1	2	3
Conspicuous consumption psychology	0.835		
Value orientation	0.322	0.854	
Non-ethical behaviors	0.598	0.531	0.847

From the results in Table 4, all latent variables exhibited good discriminant validity. Through a comprehensive analysis of different tools mentioned above, it can be concluded that the scale of this study had good reliability and validity, and further analysis was possible. Before testing the hypotheses, a correlation analysis was carried out to examine whether there was a correlation among major variables. Additionally, collinearity diagnostics with VIF was used to determine whether there was a collinearity problem with the variables. The following table shows the correlation analysis of this study.

Table 5 Correlation Analysis and Collinearity Diagnostics

	Mean	Standard Deviation	1	2	3	4	5	6	7
1 Conspicuous consumption psychology	4.622	1.421	1						
2 Value orientation	4.231	1.732	-0.237***	1					
3 Non-ethical behaviors	3.695	1.358	-0.191**	0.258***	1				
4 Gender	1.465	0.611	0.073	-0.061	-0.162***	1			
5 Educational attainment	2.557	1.216	-0.103	-0.173**	-0.057	0.151***	1		
6 Monthly living expense	3.368	1.579	0.367***	-0.162**	-0.037	0.251***	0.161***	1	
7 Occupation of parents	3.315	0.835	0.256**	-0.021	-0.089	0.031	0.421***	0.122**	1
Collinearity diagnostics with VIF				1.373	1.428	1.104	1.721	1.326	1.321

Note: *** represented $P < 0.01$ and ** represented $P < 0.05$

From the correlation analysis and collinearity diagnostics with VIF in the above table, most of the correlation between variables was significant at the level of $P < 0.05$, making them suitable for further regression analysis. Furthermore, the VIF test of all variables showed that none of the VIFs exceeded 2, indicating no collinearity problem [54]. Next, path analysis was used for each variable to verify the hypothesis.

4.4 Confirmatory Analysis of the Hypothesis

Our study carried out a confirmatory analysis on the research hypotheses using AMOS24 software and drew a path diagram of the structural equation based on the above-mentioned hypothesis model. We sought to examine the relationship between conspicuous consumption and non-ethical behaviors. To guarantee the reliability of data, the dimension of non-ethical behaviors was designed as negatively worded items in the questionnaire survey.

The results of the analysis are as follows:

Table 6 Path Analysis

Path	Path Coefficient (Estimate)	S.E.	C.R.	P	Standardized Coefficient (β)
Non-ethical behaviors <--- Conspicuous consumption	0.527	0.065	8.086	***	0.568
Non-ethical behaviors <--- Value orientation	-0.462	0.053	-8.721	***	-0.581
Conspicuous consumption <--- Value orientation	-0.217	0.069	-3.129	0.002	-0.249

Note: ***, ** and * represented the levels of significance of 1%, 5% and 10% respectively

From the results of path analysis in Table 6, we can learn that the value of standardized coefficient β in the relationship between conspicuous consumption and non-ethical behaviors in H1 was 0.568, confirming the positive correlation between conspicuous consumption psychology and non-ethical behaviors. The value of β in H2 was -0.581, indicating that the more people were inclined to collectivist values, the less likely they would be to engage in non-ethical behaviors.

4.5 Analysis of Moderating Effect

Through the above path analysis, we considered analyzing the moderating degree of the model by taking value orientation as the moderating variable between conspicuous consumption and non-ethical behaviors. Existing methods to test moderation analysis mainly include hierarchical regression analysis and multivariate analysis. Given that our analysis of the direct effect was done with path analysis, we employed multi-group analysis for consistency. We divided the moderating dimension into collectivist value and individualist value through the mean of the moderating dimension. By calculating the data, we found that in the value orientation variable, AVG was 2.6901. Thus, those with an AVG below 2.6901 were regarded as having an individualist orientation, while those with an AVG above 2.6901 were named as having a collectivist orientation.

AMOS was then used to test the moderating effect of value orientation on the relationship between conspicuous consumption and non-ethical behaviors. The results of the analysis are shown in the following table:

Table 7 The Moderating Effect of Value Orientation on the Relationship between Conspicuous Consumption and Non-ethical Behaviors

Model	$\chi^2(d.f.)$	$\Delta\chi^2(p\text{-value})$	Standardized Coefficient	Standardized Coefficient
			Collectivist orientation (N=272)	Individualist orientation(N=183)
Model C ¹	1693(922)			
Model D ²	1700(924)	14.319 (.014)	-.587**	.101 (p=.256)

Note: ***, ** and * represented the levels of significance of 1%, 5% and 10% respectively

Table 7 shows the analysis of the moderating effect of value orientation on the relationship between conspicuous consumption and non-ethical behaviors. Through multi-group analysis in AMOS, it can be seen that grouping by level of value orientation resulted in significant changes in the relationship between value orientation and non-ethical behaviors ($\chi^2=14.319$, $P=.014$).

¹ Model C was the baseline model that was not controlled in AMOS

² Model D was the model that was controlled for value orientation and ethical behavior path in AMOS

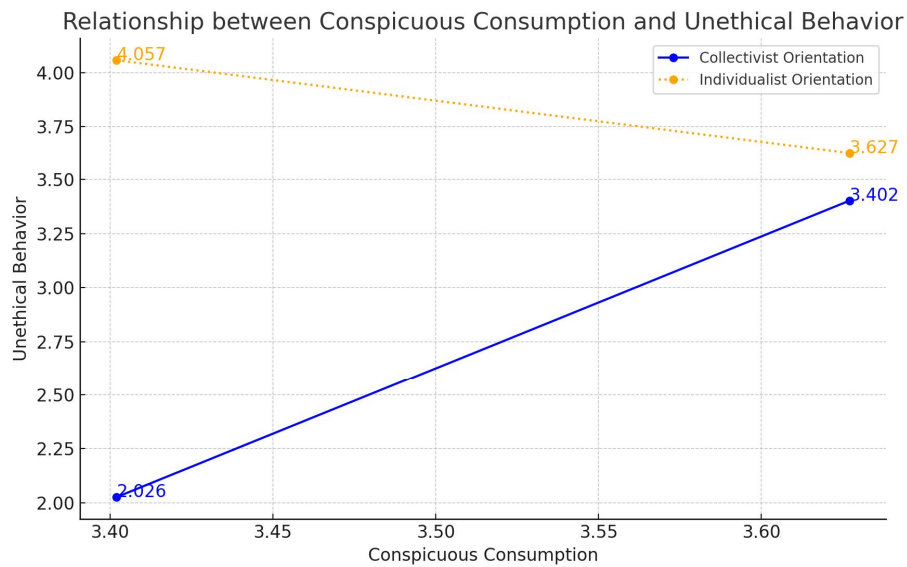


Fig. 3 Simple Slope Analysis of Value Orientation on the Relationship between Conspicuous Consumption Psychology and Non-Ethical Behaviors

According to moderation results of the two groups, it can be seen from the standardized coefficient that under the collectivist orientation, the standardized coefficient of conspicuous consumption and non-ethical behaviors was -0.587, which was significant. Under individualist orientation, the standardized coefficient of conspicuous consumption and non-ethical behaviors was 0.101, which was not significant. By taking the value $\pm 1SD$, we divided conspicuous consumption psychology into high and low conspicuous consumption psychology for simple slope analysis. The simple slope analysis showed that in different value orientations, the impacts of conspicuous consumption psychology on non-ethical behaviors were different. Combined with the above table and the analysis in Figure 3, collectivist orientation negatively moderates the relationship between conspicuous consumption and non-ethical behaviors. The collectivist orientation in H2a negatively moderated the relationship between conspicuous consumption and non-ethical behaviors, while the individualist orientation in H2b positively moderated the relationship between conspicuous consumption and non-ethical behaviors.

5. Discussion

5.1 Discussion about the Results

Due to the rapid development of society and the economy, there has been a rise in hedonistic consumerism, especially among college students, who are the pillars of our future society. Their consumption concepts affect their future life planning. For this reason, understanding the influence of consumption concepts on their behaviors and how to change these concepts is essential for student administrators.

Therefore, based on the above considerations, our study designed a model to examine the relationship between conspicuous consumption concepts and non-ethical behaviors. We explored the relationship among college students' conspicuous consumption concepts, value orientations (collectivism and individualism), and ethical behaviors, with a particular focus on the moderating effect of value orientation on these relationships.

As manifested by the research, conspicuous consumption concepts significantly influence the ethical behaviors of college students. Specifically, the stronger the conspicuous consumption concept, the more likely students are to engage in non-ethical behaviors. This study draws on previous research on conspicuous consumption, with results consistent with those of earlier studies [55][56][57]. Previous studies primarily focused on the direct impact of conspicuous consumption on related ethical behaviors, while this study incorporates personal value orientation as a significant internal factor affecting consumer behavior, especially in the context of China, the birthplace of Confucian thought.

Following this line of inquiry, we incorporated Hofstede's [16] value orientations (collectivism and individualism) as important moderating variables to examine their impact on the relationship between conspicuous consumption and non-ethical behaviors. The analysis revealed that even if college students with a collectivist tendency possess conspicuous consumption psychology, they are less likely to engage in non-ethical behaviors. This result can be attributed to the collectivist belief that external interests outweigh personal interests. Conversely, for college students with an individualist tendency, the moderating effect was not distinct. This discrepancy might be due to the strong emphasis on moral education and humanistic quality cultivation

in colleges and universities, which could mitigate non-ethical behaviors despite an individualistic tendency.

5.2 Research Recommendations

At present, certain non-ethical consumption behaviors, such as hedonistic and conspicuous consumption, have emerged as issues behind China's rapid economic development. The most significant economic problem caused by these behaviors is the wastage of social resources.

According to Marxist value theory, the true value and meaning of life lie in one's contribution to the collective and society. Under the collectivist culture, specific individual behaviors can encourage others to emulate them, particularly those with a strong collectivist tendency. As a crucial battlefield for nurturing individuals, colleges and universities play an essential role in promoting a scientific view of consumption among college students. Based on Marxist value theory and our findings, the following recommendations are proposed:

First, strengthen moral education based on traditional value systems. Deepen the education of collectivist values, ideals, and beliefs, guiding and helping college students to recognize and deal with various life issues correctly. Promote ethical judgment and moral self-discipline, and reduce irrational consumption behaviors.

Second, the environment of colleges and universities subtly impacts college students, creating a public opinion field for healthy consumption. Utilize the explicit and implicit effects of static and dynamic campus cultural activities. Colleges should intensify the education of consumption economy and consumer ethics, utilizing mainstream media to promote moral concepts such as diligence, thrift, and hard work. Set examples, advocate rational and moderate consumption, and guide students to build rational consumption concepts. Oppose and eliminate bad spending habits, avoid moral decline due to unhealthy consumption culture, and create an upbeat group culture and scientific, healthy consumption culture.

Lastly, colleges and universities should play a role in educating individuals through practice. Conduct a wide variety of social practice activities to heighten students' sense of duty and mission. Guide students to understand the national conditions and popular sentiment in China, strengthen their assumption of responsibility in practice,

and encourage actions that practice the concepts of gratitude, accountability, green environmental protection, and green consumption. This will effectively prevent irrational consumption behaviors.

From the results of this study, it is recommended that relevant departments advocate for adherence to traditional morality and the promotion of the “Chinese Dream”. University administrative departments should encourage college students to adopt concepts of long-term development and green consumption, thereby reducing non-ethical behaviors. Emphasizing the abandonment of traditional face concepts and promoting correct consumption concepts through publicity and guidance is also essential.

5.3 Conclusion and Future Direction

In this study, we analyzed conspicuous consumption psychology and its impact on non-ethical behaviors, based on the moderating effect of value orientation. The results generally support some of the proposed hypotheses. However, as this study is based on samples from universities in Zhejiang Province, it may not effectively represent data for all of China, given the developmental gaps between different regions. Future research should consider expanding the sample size and including comparative studies based on the varying levels of economic development.

The main focus of this study was to examine the impact of value orientations on conspicuous consumption and ethical behaviors among college students. Many other factors, such as guanxi culture and publicity orientation, also affect college students' behaviors. Incorporating these cultural aspects in future research could enhance the depth and breadth of the analysis.

Disclaimer (Artificial intelligence)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of manuscripts.

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Appendix:

Scale	Item
Conspicuous consumption concept	I hope that the products that I buy are unique and not owned by others.
	I hope to own a luxurious mobile phone.
	I like buying branded products.
	Among classmates, I consider face to be very important.
	If I lose face, I will feel very frustrated.
	If my classmates admire me, I will be very happy.
	Individuals should sacrifice their own interests for the sake of the group.
	Individuals should stick to teamwork even when they have a hard time.
Value orientation	Collective interests outweigh individual interests
	While contributing to the team, I don't expect anything in return.
	I will prioritize eco-friendly products even if comparable products are priced higher.
	I will make some efforts to protect the environment.
Ethical behaviors (Negatively worded items)	I will try to persuade people around me to commit to environmental protection.
	If there is litter lying around, I will pick it up and throw it into the trash can
	If I find someone stealing, I will stop him
	I often care for solitary old people in the society.