

A Comparative Study of Environmental Responsibility and Environmental Values on the Environmental Behavior of Chinese and Foreign College Students

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Abstract: By means of questionnaires, 946 undergraduates from two universities in Tianjin were investigated on the impact of environmental responsibility and environmental values on their pro-environmental behavior, and the relationship between them was also examined. The results show that the pro-environment behavior of foreign college students is significantly higher than that of domestic college students. In addition, environmental responsibility and environmental values have different effects on pro-environment behavior of Chinese and foreign college students. Relevant data show that environmental responsibility significantly affects pro-environment behavior of domestic students, while the latter affects foreign studies. The key factors of bio-environmental behavior can be relied on to promote the development of bio-environmental behavior of college students in China.

1. Introduction

Although the world is seemingly in a very harmonious state, there are still more or less problems in some parts of the world. In addition to human problems, many of these problems are caused by environmental problems [1]. It is the existence of these problems that makes people begin to study pro-environmental behavior [2]. Relying on the promotion of pro-environment behavior can significantly enhance the interaction between the environment and people, thus forming a harmonious coexistence between people and the environment. At present, the analysis of pro-environmental behavior and its driving factors is a key aspect, and has gradually become the focus of social psychology and environmental psychology.

For the term of pro-environmental behavior, it is mainly described as environmentally friendly behavior in China [3]. In 2000, Stern, a well-known scholar, defined it as human activities manifested by people's intention to protect the environment or prevent environmental deterioration [4]. Subsequently, some scholars even classified this behavior as pro-environmental behavior in the private and public spheres. At present, many scholars have analyzed various influencing factors, such as environmental values, which have become the influencing factors of the study [5]. It provides effective help for the follow-up study of pro-environmental behavior. Follow-up scholars closely linked this behavior with people's attitude towards the environment, thus providing a strong support for the impact of environmental values on people's pro-environment behavior [6]. However, in recent years, with the deepening of the research on pro-environmental behavior, environmental responsibility has begun to be included in the scope of research, especially its impact on people's pro-environment [7]. For the above-mentioned studies, although they have achieved good validation results, and have good representativeness, but for the environmental responsibility, environmental values on the impact of environmental behavior of Chinese and foreign college students is quite scarce [8]. Based on this, this paper carried out a study in this regard, in-depth analysis of environmental responsibility. The comparison of the influence of Ren's and Environmental Values on the pro-environment behavior of Chinese and foreign college students will help to promote the research on the related content of pro-environment behavior.

2. Research Methods

2.1. Selection of research objects

Taking students of Tianjin University of Technology and Tianjin University of Technology in Tianjin as subjects, 1000 questionnaires were randomly distributed and 957 were recovered, with a recovery rate of 95.7%. Among them, 946 were valid questionnaires, with an effective rate of 94.6%. Among the effective population, 563 were males, accounting for 59.5% of the total number of surveys, 383 were females, accounting for 40.5% of the total number of surveys. In addition, 737 were domestic students, while 209 were foreign students, accounting for 77.9% and 22.1% respectively. The selected population covers education, economics, science, engineering and law. The specific data are shown in Table 1 below.

Table 1 Survey population composition statistics

Variable	Class	Number	Proportion(%)
Domestic students	Male	475	50.2
	Female	262	27.7
Foreign students	Male	88	9.3
	Female	129	12.8

2.2. Research tools

In this study, five grades of “very important” to “very important” were adopted, and they were divided into 1-5 points [9]. Combining with the previous experience, this process atmosphere is measured as three components of self-interest value, altruistic value and ecosystem value. The corresponding scoring range is 4-20, and the higher the score, the higher the degree of the participants holding this value. In the study of this paper, according to the analysis, the corresponding fitting index is $\chi^2/df = 9.84$, $NMFI = 0.94$, $CFI = 0.96$, $NFI = 0.95$, $RMSEA = 0.095$, and all the indicators are acceptable. In addition, the internal consistency coefficients of the subscale were 0.834, 0.730 and 0.917, respectively.

For this aspect, the measurement is also carried out in the above way. From “very important” to “very important”, it is divided into five grades, which are divided into 1-5 points. The corresponding scale scored 15-75 points. The higher the score, the higher the impact of environmental responsibility. In this experiment, according to the analysis, the corresponding fitting index is $\chi^2/df = 4.59$, $NMFI = 0.95$, $CFI = 0.95$, $NFI = 0.94$, $RMSEA = 0.061$, and all the indicators are acceptable. In addition, the internal consistency coefficient of the subscale is 0.817.

According to the literature, this measurement process is divided into two dimensions: public domain and private domain. Five grades, from “never” to “often”, were used to score 1-5 points. The corresponding scale scored 12-60 points. The higher the score, the higher the corresponding frequency of pro-environment behavior. According to the analysis, the corresponding fitting index is $\chi^2/df = 8.44$, $NMFI = 0.92$, $CFI = 0.93$, $NFI = 0.93$, $RMSEA = 0.083$, and all the indicators are acceptable. In addition, the internal consistency coefficient of the subscale was 0.783, and the corresponding two dimensions were 0.681 and 0.768, respectively.

2.3. Data processing

All the obtained data were processed by statistical software SPSS 22.0, and the results of data representation were obtained by relevant analysis.

3. Results and Analysis

3.1. Characteristics of parental behavior of Chinese and foreign college students

From the data analysis results, we use the independent sample^t test to examine the differences

between Chinese and foreign students in the impact of environmental responsibility of College students. The specific results are shown in Table 2. From Table 2, we can see that the impact of environmental responsibility of domestic students is significantly higher than that of foreign students.

Table 2 Differences in environmental responsibility among students at home and abroad

Variable	M \pm SD	t/F
Domestic students	4.26 \pm 0.59	4.99
Foreign students	3.75 \pm 0.53	

3.2. Impact of environmental responsibility and environmental values on parental environmental behavior of chinese and foreign college students

In order to further analyze the impact of these factors on the pro-environment behavior of Chinese and foreign college students, and to analyze the three kinds of values, environmental responsibility and environmental values, the main results are shown in Table 3. According to the results of Table 3, altruistic values are positively correlated with the values of the ecosphere and pro-environment behavior. There is a significant positive correlation between environmental responsibility, self-interest values and environmental responsibility, and pro-environmental behavior and environmental responsibility. In addition, altruistic values and ecological values are positively correlated with environmental responsibility.

Table 3 Variable correlation matrix analysis

	Egoistic values	Altruistic Values	Environmental responsibility	Private sphere pro-environment	Pro-environment in the publicsphere
Egoistic values	0.254				
Altruistic Values	0.180	0.642			
Environmental responsibility	-0.009	0.237	0.284		
Private sphere pro-environment	0.003	0.229	0.212	0.128	
Pro-environment in the public sphere	-0.008*	0.225	0.265	0.240	0.397

4. Discussion

From the analysis of the characteristics of College Students' environmental responsibility, we can see that for the student variables, the impact of domestic students' environmental responsibility on their pro-environmental behavior is significantly higher than that of foreign students, which is consistent with many well-known studies at present. From this point of view, the role difference is the key to the influence of College Students' environmental responsibility on pro-environmental behavior. Firstly, individual behavior and psychology are shaped by the expectations of relevant roles in cultural norms. Under this framework, Chinese people are influenced by the ego in their pursuit compared with foreigners, which makes personal social responsibility have expectations. Chinese people lack this cultural influence and focus on self-pursuit, which has less influence on social responsibility. However, from the perspective of social values, foreign students are significantly higher than domestic students, which is caused by cultural differences.

Secondly, from the perspective of the impact of environmental responsibility and environmental values on students' pro-environmental behavior, domestic students' pro-environmental behavior is greatly affected by environmental responsibility, while foreign students are greatly affected by environmental values. On the one hand, it is mainly influenced by different cultures: the foreign

world is mainly dominated by Western cultures, which emphasizes the individual, self and other aspects, that is, everything should be subordinated to the self, so that its corresponding social responsibility is not emphasized enough, while the domestic students are constrained by our traditional moral culture. Individual behavior should be monitored by the public, which restricts individuals and collectives according to the moral bottom line, so that each individual will be more or less influenced by the thought of collectivism, so the invisible individual social responsibility becomes a powerful driving force to promote their pro-environment behavior.

5. Conclusion

Based on the topic of “comparative study on the influence of environmental responsibility and environmental values on the pro-environmental behavior of Chinese and foreign college students”, this paper conducts a random questionnaire survey among students and foreign students in two campuses of Tianjin University. It takes environmental responsibility, environmental values and pro-environmental behavior as the elements of investigation and research. The corresponding statistical data analysis clarifies the comparative study of environmental responsibility and environmental values on the pro-environment behavior of Chinese and foreign college students. Through correlation analysis, it can be seen that environmental responsibility and environmental values have different effects on the pro-environment behavior of Chinese and foreign students. Among them, environmental responsibility significantly affects the pro-environment of domestic students. Behavior, while the latter is the key factor affecting the pro-environment behavior of foreign students.

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