

Influence of Tourists' Environmental Tropisms on Their Attitudes to Tourism and Nature Conservation in Natural Tourist Destinations: A Case Study of Jiuzhaigou National Park in China

CHENG Shaowen^{1,2}, ZHANG Jie², LU Shaojing², XU Feifei³, ZHANG Honglei²

(1. School of City and Environment Science, Huazhong Normal University, Wuhan 430074, China;

2. School of Geographic and Oceanographic Sciences, Nanjing University, Nanjing 210093, China;

3. School of Service Management, Bournemouth University, Bournemouth BH12 5BB, UK)

Abstract: People's environmental tropism has an effect on their understanding of tourism-nature relationship, and also influences their attitudes to natural resources utilization and environmental protection. Taking Jiuzhaigou National Park of China as a study case, the authors conducted some quantitative analyses with the tools of SPSS 16.0 and LISREL 8.7, to explore the influence of tourists' environmental tropism on their attitudes to tourism and nature conservation in the natural tourist destination. Three hypotheses and the theoretic model of influences of tourists' environmental tropism on their attitudes to tourism and nature conservation have been tested and accepted based on the Structural Equation Model analysis on survey data collected in Jiuzhaigou National Park of China. Some conclusions were drawn as follows: 1) tourists' human-prioritized concept influences their cognition to tourism-nature relationship. This concept has a positive influence on their supportive attitudes to tourism, but a negative influence on their attitudes to nature conservation; 2) tourists' human-nature coordination concept has a positive influence on their supportive attitudes to both tourism and nature conservation, especially to the latter. This paper generally proves that human's environmental tropism does have an influence on their attitudes to tourism and nature conservation in natural tourist destinations.

Keywords: environmental tropism; nature conservation; natural tourist destination; tourism-nature relationship; Jiuzhaigou National Park

Citation: Cheng Shaowen, Zhang Jie, Lu Shaojing, Xu Feifei, Zhang Honglei, 2011. Influence of tourists' environmental tropisms on their attitudes to tourism and nature conservation in natural tourist destinations: A case study of Jiuzhaigou National Park in China. *Chinese Geographical Science*, 21(3): 377–384. doi: 10.1007/s11769-011-0450-8

1 Introduction

The relationship between human, culture and environment has always been the focus of many subjects, including social science, behavioral science and geographical science. Environmental tropism, as a common tropism, attitude, and belief towards nature and environment in various population and cultures, is essential cognition to human-nature relationship, which is related to religion, value concept, and main thinking modes (Altman and Chemers, 1991).

Nature and natural resources have become the core elements of tourism, on which tourism has depended increasingly (Urry, 1995). As a short-term life style, tourism is a kind of dissimilatory experience from tourists' daily routine or normal understandings of human-nature relationship (Zhang, 2008). Human-nature relationship is a basic topic and primary relationship in tourism and tourism research (Chen, 2000; Huang, 2004; Ming, 2006), and it is also the greatest contribution of geographers to tourism and the main content of tourism geography (Hall and Page, 2009).

Received date: 2010-07-12; accepted date: 2010-10-20

Foundation item: Under the auspices of Sino-British Fellowship Trust by British Academy (No. SG-47266), National Natural Science Foundation of China (No. 49571031), Foundation of China Scholarship Council (No. 2008619067)

Corresponding author: ZHANG Jie. E-mail: jiezhang@nju.edu.cn

© Science Press, Northeast Institute of Geography and Agroecology, CAS and Springer-Verlag Berlin Heidelberg 2011

People with different understandings of nature and environmental tropism may have different opinions on natural resources utilization and environmental protection, which directly leads to the different actions for changing and creating physical environment (Altman and Chemers, 1991). Schroeder (2007) ever investigated residents' outdoor recreational experiences in natural places in central-western region of the USA, and his research has proved the evidences that people's environmental tropisms would directly influence their experiences of nature, and that the human-nature experience in specific places would spur people to take human-nature relationship into more dialectical consideration and to gain environmental responsibility and ethics to nature. The investigation on tourists' environmental tropism is very important for the fact that human is the most active dominant element in tourism. Tourists' activities in destinations are affected and controlled by their beliefs. If a man does not have stronger environmental ethics, it will be very difficult to impose a positive influence on his activities in tourist destinations (Holden, 2009). Do tourists' environmental tropisms differ from each other, and why are there many different environmental tropisms? To answer these questions, Schultz *et al.* (2004) researched and found that the different cultures and population had the different environmental tropisms, and that the environmental tropisms difference came from different individuals' experiences and environmental factors.

Although much literature on human-nature relationship and tourist perception could be found both at home and abroad, there has been very little research on how tourism changes people's understandings of environment, and on the influence of people's environmental tropism on tourism growth and tourism sustainability (Gössling, 2002), especially on their attitudes to tourism and nature conservation with quantitative analyses. Hence, this paper was designed and conducted for quantitative statistical analysis on the effect of tourists' cognition to human-nature relationship on their attitudes towards tourism development and nature conservation with a case of Jiuzhaigou National Park in China.

2 Data and Methodology

2.1 Study area

Jiuzhaigou National Park is situated in the mountainous

area of the northern Sichuan Province, China. Because of its unique natural scenes and valuable ecosystem, Jiuzhaigou was designated as a National Nature Reserve in 1978 by the Department of Environment Protection of China and then as a Chinese National Park by the State Council of China in 1982. Nature conservation and tourism development have always been the two principal management objects, which is consistent with oversea's national park management objects defined by International Union for Conservation of Nature and Natural Resources (2000). Jiuzhaigou is so valuable for its unique natural ecosystem and so famous as a natural tourist destination that it was ranked into the list of World Natural Heritage in 1992 and one of the first AAAAA tourist destinations in China. The entire park is strictly protected for ecological purpose with the only exception of its three main valleys of Shuzheng, Zezhawa and Rize, where there exists a controlled tourism development. Therein tourism has become the most important economic source.

2.2 Data collection

Scientific researches on nature and human-nature relationship should be conducted in people's living places (Schroeder, 2007). So data for this research were collected in Jiuzhaigou National Park from April 2008 to May 2008. And a random face-to-face tourist questionnaire was implemented by the authors. The questionnaires were designed to attain the information of all about respondents' demographic features, tourists' environmental tropism and cognition to tourism-nature relationship, and their attitudes to tourism and nature conservation there (Table 1 and Table 2). In the survey, five-point Likert scale was applied to differentiating respondents' responses, and 1 to 5 were the weight given to the answers 'very important' (completely agree), 'important' (agree), 'fair', 'unimportant' (disagree) to 'very unimportant/completely disagree'. About 600 questionnaires were handed out, and 597 were returned, among which 592 questionnaires were totally valid for this research. The feedback rate and validity rate were respectively 99.5% and 98.7%. All the second hand data were obtained from the Jiuzhaigou National Park Authority.

From Table 2, we can know that interviewees in Jiuzhaigou principally support tourism and nature conservation with minor attitude difference. And they principally hold the idea that tourism can raise environmental aware-

Table 1 Features of respondents in Jiuzhaigou National Park

Feature	Description	
Gender	Male	59.6%
	Female	40.4%
Age	16–25	21.6%
	26–35	33.7%
	36–45	27.4%
	46–55	12.3%
	≥ 56	4.9%
Travel pattern	Package tour	69.3%
	Visiting independently	30.7%
First-time travel to Jiuzhaigou?	Yes	87.9%
	No	11.9%
Grow-up environment	Countryside	40%
	City	60%
Living environment	Countryside	14%
	City	86%

ness, but not so much agree with the belief that tourism can benefit the natural environment.

2.3 Methodology

Structural Equation Model (SEM) analysis is a kind of statistically confirmative rather than exploratory analytic method for causal analysis of social and natural phenomenon. And SEM can provide researchers with universally perfect method for quantitative analysis and theoretical hypothesis confirmation (Li, 2004; Huang, 2005). SEM has been greatly used for exploring tourists' satisfaction and loyalty, and factors influencing residents' attitude to tourism development in destinations (Gursoy and Rutherford, 2004; Wang *et al.*, 2005; Yoon

and Uysal, 2005; Kitnuntaviwat and Tang, 2008). Here SEM was used as a confirmatory technique to investigate the influence of tourists' environmental tropisms on their attitudes to tourism and nature conservation in China's Jiuzhaigou National Park.

2.3.1 Hypothesis

Different cultures and populations in different time may hold three different environmental tropisms, that is, three different kinds of cognition or attitudes to human-nature relationship: human-prioritized concept emphasizing human being's role in the world, nature-prioritized concept emphasizing nature's influence on the human being, and the human-nature coordination concept emphasizing the harmonious coexistence of human being and the nature. People act with different behavior patterns and different environmental tropisms (Table 3) (Altman and Chemers, 1991).

People's activities and attitudes to nature can also influence the relationship between tourism and nature (Schultz, 2002). Taking tourism-nature relationship as the embodiment of human-nature theory in tourism, we may hold that, tourists with human-prioritized concept might agree with the idea that tourism benefits nature. In this paper, tourism-nature relationship can be described with two statements, 'tourism can benefit the natural environment' and 'tourism can raise people's environmental awareness'. So we can put forward the first hypothesis as follows:

H1: tourists' human-prioritized concept can directly and positively influence their perception of tourism-nature relationship.

Table 2 Statistical result of respondents' cognition and attitudes

Attitude	Mean	S. D.	Cognition	Mean	S. D.
Nature/scenery conservation	1.30	0.493	Tourism can benefit the natural environment	2.83	1.119
Wildlife conservation	1.34	0.524	Tourism can raise environmental awareness	2.00	0.857
Leisure and tourism	1.85	0.845			

Table 3 Different environmental tropisms and different human being's behavior patterns

Environmental tropism	Representative theory	Human-nature relationship	Human being's behavior pattern
Nature-prioritized concept	Environmental determinism	Human resigned themselves to nature	Human beings are predominated by powerful nature, and what people can do is to accept what they are given and to adapt to nature
Human-prioritized concept	Possibilism or voluntarism	Human predominated nature	Human beings can divorce from nature, and people can control and make full use of nature as they will
Human-nature coordination concept	Adjustablism or harmonious theory	Human being is a part of nature inherently	Human beings are a part of nature, and correlated with nature. People should try to coexist ecologically with nature like trees, animals and rivers

Source: Altman and Chemers, 1991

People’s actions result from their opinions on the world (Ren, 2003). Tourism managers, tourism operators, tourists and local residents act under the guidance of some theories, concepts and belief. People’s judgment on whether one’s recreational activity in natural places is acceptable depends on their cognition to the relationship between human and nature (Schroeder, 2007). Here come the basic hypotheses H2 and H3 as below:

H2: tourists’ human-prioritized concept can positively and significantly influence their supportive attitudes to tourism;

H3: tourists’ human-nature coordination concept can positively and significantly influence their supportive attitudes to both tourism and nature conservation to some extent.

2.3.2 Theoretical model

Figure 1 is a specified model based on the previous hypotheses. In this model, tourists’ attitudes to tourism and nature conservation, both as an endogenous latent variable, act as a dependent variable, and they respectively can be tested with three exogenous measured variables—their desire and attitudes to tourism development, natural landscape conservation and wildlife preservation in Jiuzhaigou National Park. Eight statements (act as exogenous measured variables) about respondents’ environmental tropisms are independent variables, while tourism-nature relationship acts as both mediator and endogenous latent variable (Table 4). Considering there are very few supporters of nature-prioritized concept nowadays, the eight statements are all about human-prioritized concept and human-nature coordination concept.

The followings are the general equations of measurement model (equations 1 and 2) and structural model (Equation 3):

$$Y = \Lambda Y \eta + \omega \tag{1}$$

$$X = \Lambda X \zeta + \delta \tag{2}$$

where Y is the vector of endogenous measured variables, and X is the vector of exogenous measured variables; η is the vector of endogenous latent variables, i.e. latent dependent variables; ζ is the vector of exogenous latent variables, i.e. exogenous independent variables. ΛY is the factor loadings matrix of η for Y , and ΛX is the factor loadings matrix of ζ for X . δ and ω are the vectors of measurement error which can not be explained by latent variables.

The following is the general equation of structural model to identify the relationship between latent variables:

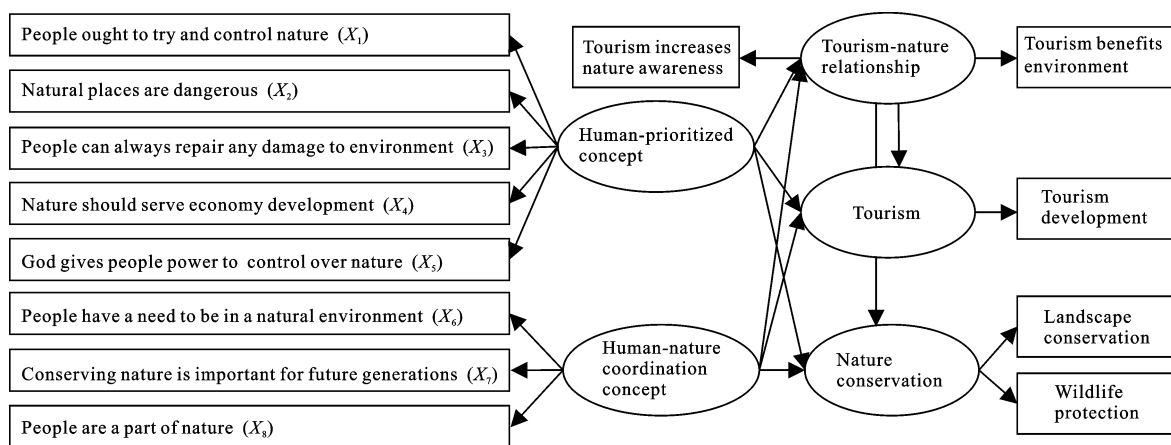
$$\eta = \beta \eta + \Gamma \zeta + \zeta \tag{3}$$

where η and ζ are the vectors of endogenous and exogenous latent variables, respectively; β is the path coefficients matrix of η ; Γ is the path coefficients matrix of ζ ; and ζ is the vector of residual variable that can not be explained by latent variables.

3 Results and Analyses

3.1 Factor analysis and reliability test

Table 4 shows the results of Principal Component Factor Analysis (after varimax rotation) and descriptive analysis of the eight statements about tourists’ environ-



Variables in circles or ellipses are all endogenous latent variables, and those in squares are exogenous measured variables

Fig. 1 Theoretic influence model of tourists’ environmental tropisms on their attitudes to tourism and nature conservation in natural tourist destinations

Table 4 Factor analysis and descriptive analysis results of tourists' environmental tropisms in Jiuzhaigou National Park

	Principal component factor analysis (rotated factor)		Descriptive analysis	
	1	2	Mean	S. D.
People ought to try and control nature (X_1)	0.739	-0.036	3.10	1.297
Natural places are dangerous (X_2)	0.662	0.026	3.27	1.168
People can always repair any damage to environment (X_3)	0.751	0.029	3.23	1.293
Nature should serve economic development (X_4)	0.748	-0.035	3.14	1.249
God gives people control over nature (X_5)	0.805	0.028	3.11	1.277
People have a need to be in a natural environment (X_6)	0.097	0.803	1.73	0.801
Conserving nature now is important for future generations (X_7)	-0.060	0.896	1.42	0.698
Human being is a part of nature (X_8)	-0.034	0.868	1.53	0.704
KMO and Bartlett's Test	KMO value = 0.775 (> 0.75), Bartlett test 1388.059 (Sig. = 0.000)			

mental tropisms with SPSS16.0.

According to the KMO value and the Bartlett test result (1 388.059, $p = 0.000$), the results of factor analysis are acceptable (Mi and Zhang, 2000). Tourists in Jiuzhaigou are more likely to hold the human-nature coordination concept instead of human-prioritized concept.

Internal consistency reliability test is required to test the consistence of several variables or items, and to tell the inner validity of a set of or all tested questions. So SPSS 16.0 is utilized to test the internal consistency reliability of the data collected in Jiuzhaigou National Park. All tested Cronbach α values are above 0.50. This means that the data and questionnaires are completely valid for further analyses with a perfect internal validity (Mi and Zhang, 2000).

3.2 Model test and analysis

The software LISREL 8.70 is used to test the mentioned-above hypothetic influence model with the method of Maximum Likelihood. And nearly all tested factor loadings of measured variables for responding latent variables are above 0.40 (Fig. 2), which means that latent variables can be strongly explained by measured variables. Table 5 shows the results of model estimation, fitness and evaluation for the hypothetic model above.

Here χ^2/df (badness-of-fit test), GFI (goodness-of-fit index), NFI (normal fit index), NNFI (nonnormal fit index), CFI (comparative fit index), RMSEA (root mean square error of approximation), *etc.* are all indexes nor-

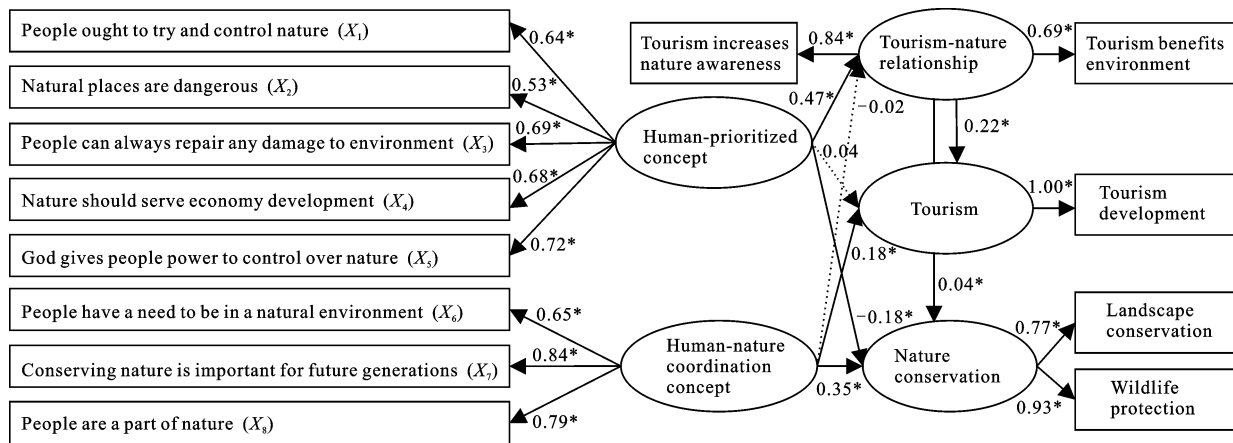
mally used for model evaluation. Generally speaking, some requirements should be met for a perfect model, i.e. $RMSEA \leq 0.08$ (the less, the better), NNFI and CFI ≥ 0.9 (the more, the better) (Hou *et al.*, 2004). As Table 5 shows, all the criteria of a perfect model have been met in this model, and the hypothetic model has been proved to be acceptable.

Figure 2 is all about the factor loadings of the tested measured variables and the latent variables' path coefficients in the model.

According to Fig. 2, there is no statistical significantly direct influence of tourists' human-prioritized concept on their attitude to tourism in Jiuzhaigou. Only indirect causal relationship between tourists' human-prioritized concept and their attitudes to tourism in Jiuzhaigou could be found in this paper via the mediator of tourism-nature relationship variable. That is to say, tourists who hold the human-priority environmental tropism do not necessarily support tourism in Jiuzhaigou, and only those tourists who believe tourism development can benefit nature in destinations support tourism there. Tourists' human-prioritized concept influences their attitudes to tourism indirectly and positively in Jiuzhaigou. So the second hypothesis in this research can be partly proved to be acceptable. In addition, tourists' human-prioritized concept significantly and negatively influences their attitudes to nature conservation. Tourists with human-prioritized concept are more likely to disagree on nature conservation in Jiuzhaigou National Park.

Table 5 Evaluation parameters of hypothetic model

Fitness indicator	χ^2/df	GFI	AGFI	RMSEA	SRMR	NFI	NNFI	CFI	IFI	RFI	PNFI	PGFI
Standard	< 5	> 0.90	> 0.90	< 0.08	< 0.08	> 0.90	> 0.90	> 0.90	> 0.90	> 0.90	> 0.50	> 0.50
Tested model	2.75	0.96	0.94	0.056	0.047	0.95	0.95	0.97	0.97	0.93	0.68	0.58



* in this figure means standardized factor loadings (> 0.40) for measured variables and standardized solution ($t > 2.00$ or $t < -2.00$) for dependent variables; beelines mean no statistically significant path causality relationship between related latent variables

Fig. 2 Influence model of tourists' environmental tropism on their attitudes to tourism and nature conservation

Meanwhile, there is no statistically significant causality relationship between tourists' human-nature coordination concept and their understandings of tourism-nature relationship. But tourists' human-nature coordination concept does positively and directly influence their support to both tourism and nature conservation in Jiuzhaigou. And the influence on nature conservation (standard solution = 0.35) is more than that on tourism (standard solution = 0.18). So the third hypothesis is completely proved to be acceptable and significant. All in all, tourists' environmental tropism does influence their attitudes to tourism and nature conservation in natural tourist destinations.

4 Conclusions and Discussion

On the basis of the analyses and findings, some conclusions can be drawn and listed as below:

1) Tourists' human-prioritized concept positively and significantly influences their cognition to tourism-nature relationship. There is no statistically significant and direct influence of tourists' human-prioritized concept on their attitudes to tourism in Jiuzhaigou, but indirect positive influence on it by means of the mediate role of 'tourism-nature relationship' perception.

2) Tourists' human-prioritized concept negatively influences their attitudes to nature conservation in Jiuzhaigou. Those who hold the idea that human should be given more priority than nature are more likely to disagree on nature conservation in Jiuzhaigou.

And this research result is consistent in principles with people's human-nature philosophy and human activities in Western countries. In western philosophy, human being has always been regarded as the representative of God and the dictator to nature. Huge environment changes and natural resources depletion has taken place for years in Western countries. As the counterpart of western human-nature philosophy and development practice, Chinese philosophy has always thought more highly of human-nature coordination environment tropism, and the majority of interviewed tourists to Jiuzhaigou are for the theory of human-nature coordination.

3) With reference to the case study of Jiuzhaigou, human-nature coordination environment tropism significantly, positively and directly influences their attitudes to tourism and nature conservation, especially the latter.

This paper has suggested that people's environmental tropisms do influence their choices, judgment and attitudes to natural tourist destinations' development and management, and tourists with human-nature coordination concept are more likely to support tourism development and nature conservation than those who hold the concept of human-prioritized concept. Tourists in Jiuzhaigou with human-nature coordination concept strongly support nature conservation as well as tourism. This finding is completely consistent with the previous descriptive analysis result.

Tourists to Jiuzhaigou show much agreement on the human-nature coordination environment tropism and the

two management goals, i. e. tourism development and nature conservation, rather than any simple one, which may be explained from Chinese traditional human-nature coordination philosophy and harmonious development belief. From the aspect of humanism, 'geographical environment's initial association with human being should be economic, though not all economical' (Ren, 2003). Nature should primarily serve people due to its life supporting functions, especially serve those who still live in rural areas (Gössling, 2002). Tourism has been proved to be the optimum means and choice for local nature conservation, natural resource utility and regional development in Jiuzhaigou National Park during the past three decades (Zhang *et al.*, 2009). It is all empty and unsustainable just to emphase nature conservation but neglecting effective natural resources utility for human being' socio-economic well-being, and nature conservation can not succeed alone without human being' reasonable development. That may be the reason why tourists to the Jiuzhaigou National Park support both tourism development and nature conservation no matter what environment tropism they hold. Meanwhile, tourism development is closely correlated with nature's cultural and spiritual functions, and highly depends on the functions of ecosystem. If the quality of an ecosystem's supplying, adjusting and supporting services and functions decreases, it will be impossible to gain tourism benefits from this ecosystem. There exists reciprocal and interdependent relationship between tourism and nature—tourism can influence nature's well-being and environment awareness, and nature can influence features and quality of tourism on the other hand (Millennium Ecosystem Assessment, 2005). So respondents in Jiuzhaigou all support nature conservation there.

According to Nash (1989), the belief of human-nature relationship should be regarded as a moral problem, and people's opinion on this relationship is crucial for future adjustments and actions of human society. So stakeholders of tourism in natural destinations need to pay more attention to reasonable human-nature relationship and deal well with nature conservation and tourism development under the guidance of human-nature coordination and sustainable development for sustainable tourism development.

This research investigated the influence of tourists' environmental tropism on their attitudes to tourism and

nature conservation in Jiuzhaigou National Park. And some explanations have also been made from the aspects of cultural tradition and physical environment features. Actually, environment tropisms and different attitudes to nature are normally influenced by many factors including features of environment itself, religious, social ideology, technique, *etc.* How to explain the influences of tourists' environmental tropism on their attitudes to nature conservation and tourism development from religious, institutional and technical aspects? How does tourism change people's understandings of nature and their environmental tropism? To answer these questions, further researches are in great need theoretically and practically.

References

- Altman I, Chemers M (Translators: Luo Linsheng *et al.*), 1991. *Culture and Environment*. Beijing: The Eastern Publishing Co. Ltd. (in Chinese)
- Chen Cai, 2000. On the fundamental conflict of tourism phenomena. *Tourism Tribune*, (6): 64–67. (in Chinese)
- Gössling S, 2002. Human-environmental relations with tourism. *Annals of Tourism Research*, 29(2): 539–556. doi: 10.1016/S0160-7383(01)00069-X
- Gursoy D, Rutherford D, 2004. Host attitudes toward tourism: An improved structural model. *Annals of Tourism Research*, 31(3): 495–516. doi: 10.1016/j.annals.2003.08.008
- Hall C, Page S, 2009. Progress in tourism management: From the geography of tourism to geographies of tourism—A review. *Tourism Management*, 30 (1): 3–16. doi: 10.1016/j.tourman.2008.05.014
- Holden A, 2009. The environment-tourism nexus: Influence of market ethics. *Annals of Tourism Research*, 36(3): 373–389. doi: 10.1016/j.annals.2008.10.009
- Hou Jietai, Wen Zonglin, Chen Zijuan, 2004. *Structural Equation Models and Its Application*. Beijing: Educational Science Publishing House. (in Chinese)
- Huang Fangming, 2005. *Structural Equation Model—Theories and Practices*. Beijing: China Tax Publishing House. (in Chinese)
- Huang Yangshan, 2004. Reflections on tourism studies. *Journal of Southeast University (Philosophy and Social Science Edition)*, 6(1): 71–74. (in Chinese)
- International Union for Conservation of Nature and Natural Resources (IUCN), 2000. *Guidelines For Protected Area Management Categories*. IUCN, Gland, Switzerland.
- Kitnuntaviwat V, Tang J, 2008. Residents' attitudes, perception and support for sustainable tourism development. *Tourism and Hospitality Planning & Development*, 5(1): 45–60. doi: 10.1080/14790530801936452
- Li Jianning, 2004. *Introduction of Structural Equation Model*.

- Hefei: Anhui University Press. (in Chinese)
- Mi Hong, Zhang Wenzhang, 2000. *Practical Modern Statistical Methods and the Application of SPSS*. Beijing: Contemporary China Publishing House. (in Chinese)
- Millennium Ecosystem Assessment, 2005. *Ecosystems and Human Well-being: Synthesis*. Washington D C: Island Press.
- Ming Qingzhong, 2006. The theoretical bases of tourism research. *Journal of Kunming University*, 17(2): 7–9. (in Chinese)
- Nash R, 1989. *The Rights of Nature: A History of Environmental Ethics*. Madison, Wisconsin: the University of Wisconsin Press.
- Ren Chuxiao, 2003. *New Environment Philosophy*. Nanchang: Jiangxi People's Publishing House. (in Chinese)
- Schroeder H, 2007. Place experience, gestalt, and the human-nature relationship. *Journal of Environmental Psychology*, 27(4): 293–309. doi:10.1016/j.jenvp.2007.07.001
- Schultz P W, 2002. Inclusion with nature: Understanding psychology of human-nature interactions. In: Schmuck P, Schultz P W. (eds.). *The Psychology of Sustainable Development*. Massachusetts, New York: Kluwer Academic Publishers, 61–78
- Schultz P W, Shriver C, Tabanico J J et al., 2004. Implicit connections with nature. *Journal of Environmental Psychology*, 24(1): 31–42. doi:10.1016/S0272-4944(03)00022-7
- Urry J, 1995. *Consuming Places*. London: Routledge.
- Wang Xia, Gu Chaolin, Mei Hu, 2005. Tourist attraction customer satisfaction index model. *Acta Geographica Sinica*, 60(5): 807–816. (in Chinese)
- Yoon Y, Uysal M, 2005. An examination of the effects of motivation and satisfaction on destination loyalty: A structural model. *Tourism Management*, 26(1): 45–56. doi: 10.1016/j.tourman. 2003.08.016
- Zhang Linyun, 2008. New framework for tourism research: A study on consumers' behavior and phenomenon under unusual environment. *Tourism Tribune*, 23(10): 12–16. (in Chinese)
- Zhang Xiaoping, Ren Peiyu, Deng Guiping, 2009. Study on strategic management of sustainable development in Jiuzhaigou Scenic Area. *Journal of Southwest University for Nationalities: (Humanities & Social Sciences)*, (6): 213–216. (in Chinese)