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ARTICLE



The growth of Chinese tourism to Antarctica: a profile of their connectedness to nature, motivations, and perceptions

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ABSTRACT

Antarctica emerged as a tourism destination only some 50 years ago, the annual number of visitors has increased and the nationalities of visitors have shifted over the years with an increasing number of visitors from the People's Republic of China. However, there is a lack of empirical studies on Chinese visitors' motivations and perceptions of their Antarctic visits. This study reports on a preliminary investigation of the reasons why Chinese visit Antarctica, their post-visiting perceptions of the region and their potential anthropogenic impacts on the Antarctic environment. The study is based on data collected from 120 passengers who travelled on two Antarctic voyages on fully Chinese chartered cruises during the 2017/18 Antarctic season. The results show that curiosity about Antarctica is the major motivation for tourists from China to visit Antarctica. The majority of respondents indicated a sense of commitment to the protection of Antarctica after their Antarctic visit but because citizens of mainland China may have a different understanding of environmental protection. The close supervision and guiding during their shore visits are recommended.

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Introduction

Antarctica is the largest wilderness area on Earth. It is a place that draws visitors to experience its remoteness, cold climate, ice shelves, glaciers, mountain ranges and of course its wildlife. Visitor numbers have increased over the past decades and in particular, there has been a substantial increase in visitors from the Peoples Republic of China. According to IAATO, the International Association of Antarctica Tour Operators, the total number of passengers (including those that travelled on cruise ships that did not make landings) increased by 54.6% from 33,438 in the 2010–11 season to 51,707 in the 2017–18 season. Chinese passenger numbers increased by 356.6% during the same period from 1,158 persons to 5,289 persons and China accounted for 15.8% of Antarctic visitors during the 2017–18 season, the second largest origin country after the United States of America.¹

The rapid growth of Chinese visitors in Antarctica can be explained by the substantial growth of China's middle class with the disposable income to afford an expensive trip to

Antarctica. An increasing concern over the continuing environmental deterioration in China, especially air pollution in cities like Beijing, may also be a constraining factor. It also reflects the tremendous growth of outbound Chinese tourists worldwide during recent years.² In 2017, China was the largest international tourists-generating country with 130 million outbound tourists, an increase of 7% from the preceding year.³

As the Chinese outbound tourist market matures, the characteristics of Chinese Antarctic visitors are also changing.⁴ The new wave of Chinese visitors seek more personalised experiences, opening opportunities for individual experiences instead of the traditionally organised mass tourism.⁵ As a result, there is now a niche market among high-end Chinese travellers who look for exceptional experiences by venturing to remote areas with less human evidence and higher environmental integrity.⁶ In Antarctica the vast majority of Chinese travel on voyages to the Antarctic Peninsula but the more intrepid ones also explore the Antarctic interior, the geographic South Pole, emperor penguin colonies, overnight camping or climbing in the trans-Antarctic mountain ranges, are promoted through Chinese high-end travel agents in the country.⁷ The new Antarctic tourism activities such as sky diving south of 80 degrees South as well as travel by a modified four-wheel drive vehicle to the geographic South Pole also draws the attention of Chinese visitors.⁸

As several researchers have pointed out, the future expansion of Antarctic tourism is likely to include new geographical source markets, with the substantial Asian market as a likely candidate for the growth.⁹ Liggett et al. (2017) state that 'the Asian market plays a significant role in Antarctic tourism'.¹⁰

Since 1961 Antarctica has been managed under the Antarctic Treaty System (ATS). China became a signatory to the Antarctic Treaty in 1983, became a Consultative Party to the Treaty in 1985 and joined the Scientific Committee for Antarctic Research (SCAR) in 1986. Since China's first base, Changcheng Zhan (Great Wall Station), was established on King George Island in the South Shetland Islands, China has shown the intention of taking more of a leadership role in Antarctic affairs.¹¹ Apart from increasing China's investment in its Antarctic bases and research programmes, the growing number of Chinese tourists also indicates China's interest in the continent. On 12 March 2019, the first polar class expedition cruise vessel built by the China Merchants Heavy Industry, the *M/V Greg Mortimer* was launched from mainland China.¹² There are indications that some Chinese tour operators would like to participate in the Antarctic tourism industry. In fact, three Chinese tour agencies have registered as members of IAATO already, but none of them are licensed by the government as yet, likely because of concern about 'political sensitivities'.¹³ Even though the Chinese media reported the 'first Chinese-only Antarctic flight' for its tourists in 2017, the operation was in fact a co-operation between a Chinese tour organiser and one of the established operators based in South Africa, meaning the Chinese agency still has to rely on foreign service providers.¹⁴ Beijing is even restricting Chinese visitors to the Great Wall Station in order to limit the disturbance to the station's operations.¹⁵ However, China still has room for improvement in legal development to regulate tourism within the ATS.¹⁶

With more tourists flocking into the Antarctic region and more development of tourism infrastructures and facilities, tourism activities in the region may 'potentially negatively affecting the regions' wilderness character and the cultural integrity of local communities'.¹⁷ If not well managed the substantial increase of Chinese visitors may pose

a threat to the fauna and flora of sites they visit. Thus several questions arise: What attracts Chinese to travel to Antarctica? What do they perceive after visiting Antarctica? Does the growth of visitor arrivals have an impact on tourism management in Antarctica? To date little is known about the motivations and perceptions of Chinese visitors to Antarctica. This study reports on a preliminary investigation of the reasons why Chinese visit Antarctica, their post-visit perceptions of the region, and their potential impacts on the Antarctic environment. Unlike other tourist destinations, Antarctica has a unique set of wilderness values which may offer different experiences and perceptions of visitors from a different cultural background.¹⁸ The study of Cole (2012) suggested that wilderness indeed offers extraordinary experiences and outcomes and visiting Antarctica does create an extraordinary wilderness experience.¹⁹ However, in the view of some Antarctic tour operators, it seems to be taken for granted that the visitors would become nature lovers or environmentalists after visiting Antarctica.²⁰ The question is whether this is also true for Chinese visitors after their Antarctic experience? To answer the question of the relationship of Chinese to the natural world and to fostering their ecological behaviour, the Connectedness to Nature Scale (CNS), was applied.²¹ The CNS has correlated with related variables such as the New Environmental Paradigm Scale (NEP), identity as an environmentalist, and has a non-correlation with potential confounds (i.e. verbal ability, social desirability). Analysing and reflecting on the results enables a better understanding of the nature connectedness of Chinese after visiting the Antarctic, and this may influence Antarctic tourism management. The next section of the paper addresses the analytical framework, methodology and data collection.

Analytical framework

This study addresses Chinese visitors' motivations and perceptions of their Antarctic visits. By combining cultural interpretation of Antarctica and tourism management, an understanding of Chinese Antarctic visitors can be achieved.

The following research questions are addressed:

- What motivates Chinese tourists to visit Antarctica?
- What are their perceptions of their Antarctic experience regarding the landscape, wildlife, historic sites as well as the Antarctic tourism management during and after their visit?
- What is the Chinese visitor's pro-ecological orientation after their visit to Antarctica?
- What potential anthropogenic impacts in Antarctica may be created by visitors from a different cultural background?

For the first and second research questions, previous studies discovered a variety of tourists' motivations and perception for visiting Antarctica.²² Their diversity may be explained by the differences in study tools, target groups, season and Antarctic region visited. In this study, we focused on the model proposed by Enzenbacher (1995) and asked respondents why they chose Antarctica as a destination and what their expectations were by using an open-ended question to provide as much detail as possible.²³

For the third research question, several quantitative measures were utilised to examine whether the experience of visiting Antarctica enhances pro-environmental behaviour or not. Previous studies that investigated this issue include Bauer (2001), Cessford and Dingwall (1998), Davis (1995), Enzenbacher (1995) and Maher (2010).²⁴ In the previous study the New Ecological Paradigm Scale (NEP) was applied to measure visitors' pro-ecological orientation at the recall stage of their Antarctic visits.²⁵ Another study noted that the NEP (both the current scale and its predecessor the New Environmental Paradigm Scale) was not an adequate measure of one's affective, experiential relationship to the natural world because it only measures the cognitive and beliefs about humans in the aggregate, not the individual's personal relationship to nature.²⁶ Studies in a Spanish and German-speaking context show that the Connectedness to Nature Scale (CNS) has an adequate level of test-retest reliability and offers good psychometric properties in non-English language-based research,²⁷ while the reliability of NEP has not been examined in non-English language context. The Connectedness to Nature Scale is more applicable in a multicultural context and it was adopted in this study. Given there's no chance to conduct the questionnaire before the voyage to compare the records against after the voyage, the Chinese CNS is still a good indicator of fostering ecological behaviour.

The fourth research question evaluated whether current tourism management will be able to cope with the increased number of Chinese visitors to Antarctica while maintaining the pristine wilderness qualities of Antarctica. Visitor guidelines were first developed by Antarctic tour operators a long time ago. These were subsequently modified into the IAATO guidelines which were in turn adopted by the Antarctic Treaty Parties. The visitor guidelines specify distances that must be maintained between humans and wildlife (5 m from penguins for example), a guide to passenger ratio of 1 to 20, a no food or smoking ashore policy and the stipulation that no more than 100 passengers plus guides can be ashore at any site at any time. From their first-hand experience as Antarctic expedition guides the first and second authors are aware that Chinese visitors are very excited of being ashore in Antarctica. This excitement can lead them to want to get to wildlife closer than what the visitor guidelines allow. Apart from being overexcited, Chinese visitors may behave differently from other nationalities because of their different cultural backgrounds from western visitors. One example is that in Chinese society, nature is seen as something that can be improved upon by humans by, for example, writing calligraphy on rock faces even though these are located in national parks, places that are highly protected and treasured in western societies. An understanding of how Chinese culture, society and political system influences people is useful in understanding their behaviour as tourists. It is not uncommon that many host tourism providers have complained about Chinese tourists were not in conformity with western cultural norms as they tend to smoke in non-designated areas, speak loudly in public areas, and dispose waste inappropriately.²⁸ Previous studies also found that Chinese tend to engage in passive leisure activities²⁹ and many adventure tourists that demand experiential travel still enjoy traditional sightseeing tours.³⁰ Noting the above, the authors seek to examine the impact of the growth of Chinese visitor numbers on the current practice of tourism management in Antarctica.

Methods and data collection

This study targeted Chinese passengers who travelled on two Antarctic voyages on fully Chinese chartered cruises during the 2017/18 Antarctic season. The first 23 days voyage combined a classic cruise expedition to the Antarctic Peninsula with visits to the Falkland Islands (Islas Malvinas) and the Island of South Georgia.

The second voyage was a classic 10-day Antarctic Peninsula voyage that started and finished in Ushuaia, Argentina. Both expeditions were designed to include as much wildlife viewing as possible, as well as visits to the Chinese Great Wall Station. The voyage also allowed plenty of time to enjoy the scenery of icy waters, glaciers, snow-covered mountains and icebergs from aboard the vessel. To be allowed to go ashore in Antarctica, all visitors have to attend a compulsory IAATO briefing in English or their own language before the first Antarctic landing. They also receive a copy of IAATO visitor guidelines to ensure all visitors understand the importance of bio-security as well as information on operational safety and so that they understand how they are expected to conduct themselves while ashore. Before each landing, all passengers have to use a boot washing station to ensure non-native soil, dirt or seeds are not brought to the landing site. All passengers, irrespective of their nationality, are given an on-shore briefing about suggested walking routes and are advised of areas to avoid ashore. Such briefings are conducted in their native language to minimise misunderstandings, so that the impact on Antarctica during their visit can be reduced.

Researchers have acknowledged that there may be a methodological bias in the data or research approach by using a single method³¹ and therefore in this study, a mixed methods approach that blends both qualitative and quantitative research methods were used. To achieve the aims of this research, social observations and conversational interviews during the Antarctic cruising voyage with self-administered questionnaires were utilised.

A self-administered questionnaire was used in this study. It was divided into three parts: visitor's background, the Connectedness to Nature Scale (CNS) and two open-ended questions: What is your reason to visit Antarctica? How do you perceive Antarctica after your voyage? The quantitative research sought to conceptualise respondents' motivations and perceptions of their Antarctic visits and examine their pro-ecological orientations after visiting Antarctica. To increase the response rate, the questionnaire was written in simplified Chinese by the first author because many Chinese visitors are not able to read or speak English. The original English version of the CNS was translated into the Chinese language by the first author and the process of back-translation was adopted whereby an instrument is translated from its original language to a different language and the translated version of the instrument is then translated back to the original language by the second author to assure conceptual equivalence.³²

During the voyages, the first and second authors worked as Antarctic expedition guides on board the vessel. Verbal and signed agreement to seek ethical approval and solicit information from visitors during the expedition was obtained from the tour company, ship operator, the Chinese tour leader and the passengers on board. Participants were also informed of the purpose, procedures, benefits, risks/discomforts and their minimization, confidentiality, data retention and the voluntary basis of the

study. The data was collected using a paper-based questionnaire. The expedition team on board handed out the questionnaire to each visitor after their last Antarctic landing. A collection box was placed at the front desk to collect the completed questionnaires. In addition to the self-administered questionnaire survey, observations of Chinese passengers' behaviour and conversational interviews were also conducted by the first author during the expeditions.

Collected data were analysed using Microsoft Excel. Descriptive statistics, such as mean, percentage, and standard deviation were used to analyse the social demographic information of the respondents. The content of non-numerical, qualitative responses of open-ended questions in the questionnaire was initially sorted meaningful quotations from all participants to correspond with each of the main questions asked, then be categorised into each theme.

Results and discussion

A total of 450 questionnaires were distributed but only 120 questionnaires were returned, of which 22 were deemed invalid for various reasons including incomplete responses. The remaining 98 questionnaires were used for further analysis. The low response rate may be partially due to the poor timing of handing out the survey questionnaires. It was the last day on board, visitors were busy with packing up their luggage to prepare for disembarkation as well as suffering motion sickness during the crossing of the Drake Passage, a stretch of water that is considered one of the toughest in the world.

Demographic profile of respondents

The demographics of respondents are given in [Table 1](#). The study had more female ($n = 60$) than male ($n = 38$) respondents. The average age of respondents was 52, about 35% were below 49 years of age. Significantly, almost all respondents ($n = 86$) stated that they had an undergraduate or higher tertiary degree. This tourist profile is, to some extent, comparable to a study by Tin and River (2016) who found that females (53%) outnumbered males (47%) based on a sample of 222 tourists from 24 countries, with a mean age of 52.³³

[Table 2](#) summarises the results of previous Antarctic studies in terms of sample size, socio-demographic information such as gender and age, past experience, and study sites.³⁴ All of the previous studies aimed to investigate the ship-based visitors in the Antarctic Peninsula except for two studies, which focused on the Ross Sea region.³⁵ These two studies had a different format of age-group representation, the general profile background of their studies is presented.

Only a very limited number of surveys of Antarctic passengers have been carried out. Nonetheless, it is warranted to compare and contrast findings from this study with previous visitor surveys. The data from this study indicates that overall the Chinese respondent's profile is relatively younger than previous studies' respondents. Only 9% of respondents were over age 65. The dominant age group of this study is 55–64 years. In contrast to previous studies that had an equal gender distribution among respondents, this survey was somewhat skewed with 61% of respondents being female.

Table 1. Survey respondents ($n = 98$) by age, gender, education.

	Number of respondents
Age	
Under 29 years	7
30–39 years	13
40–49 years	15
50–59 years	27
60+ years	36
Gender	
Female	60
Male	38
Highest formal education qualification	
Elementary school only	0
Some high school, but did not finish	2
Completed high school	10
Four-year college degree/B.A./B.S.	65
Completed Masters or professional degree	15
Advanced Graduate work or Ph.D.	6

Table 2. Summary of age, gender, previous visits of Antarctic tourists and regions visited.

Category	This study $n = 98$	Maier (2010) $n = 87$	Bauer (2001) $n = 159$	Cessford and Dingwall (1998) $n = 352^*$	Enzenbacher (1995) $n = 1126$	Davis (1995) $N = 125$
Age						
< 44 years	23%		25%		10%	12%
45–54 years	25%		21%		11%	13%
55–64 years	43%	22% < 40	30%	13% < 40	23%	25%
65–74 years	9%		21%		39%	36%
75+ years	0%	48% > 60	3%	47% > 60	17%	14%
Gender						
Female	61%	52%	45%	52%	56%	56%
Male	39%	48%	54%	48%	44%	44%
Previous Antarctic visit						
Yes	6%	27%	19%	31%	3%	11%
No	94%	73%	81%	69%	97%	89%
Regions of previous Antarctic visits						
	Falkland, South Georgia and Antarctic Peninsula	Ross Sea region	Falkland, South Georgia and Antarctic Peninsula	Ross Sea region and the New Zealand sub- Antarctic islands	Antarctic Peninsula	Antarctic Peninsula

*Only visitor profile compared in this case

Given that Chinese nationals only started travelling to Antarctica very recently it is interesting to note that 6% of respondents had previously visited Antarctica.

Motivation and perception of visiting Antarctica

Not all respondents answered both questions but 82 respondents did provide their primary motivations for visiting Antarctica and 60 gave their perceptions of Antarctica. All participants provided a single clear answer to each of the two open-ended questions.

Half (50%) of the respondents gave curiosity as the major reason for visiting. The respondents stated that they did not know much about Antarctica and that they felt curious about this continent. The second most frequent response (12%) was setting foot on all seven continents. About 10% of respondents wanted to experience the last frontier, see untouched wilderness, snow and icebergs. Only 8% of respondents mentioned wildlife encounters. About 5% of respondents wanted to get closer to nature and enjoy its beauty. A small proportion of respondents wanted to learn more about themselves, protect nature, for science and to experience station life. A summary of the reasons for visiting the region is presented in Table 3.

Motivation is a foundation of all tourist activities and has an essential influence on visitors' experience and behaviour.³⁶ Management action may need to be modified in order to match the different cultural backgrounds of visitors, who have different kinds of needs and motivation in their visiting experience. Such awareness may reduce the risks to the environment as well as to expedition operations. Previous studies conducted in the Antarctic Peninsula (Bauer, 2001, Enzenbacher, 1995; Davis, 1995) showed respectively that 12%, 39% and 79% of respondents expressed exploring the unknown Antarctic as the dominant motivation to join an Antarctic expedition.³⁷ In the current study, 50% of Chinese visitors were also driven by the same motivation. Conversely, compared to other motivations, Chinese respondents differed significantly from their western counterparts. In Enzenbacher's studies (1995), 21% of western respondents reported that experiencing wildlife was the second major motivation for visiting Antarctica.³⁸ In contrast, visiting all seven continents and experiencing the last frontier were the second most important reason for Chinese visitors. Although the interest of visiting the seventh continent was also recorded as a reason for 27% of Davis's (1995) respondents and for 14% of Enzenbacher's,³⁹ both studies showed that motivations to experience nature and specific wildlife-related motivations were higher.

Additionally, some ($n = 4$) Chinese visitors also reported environmental protection and experiencing polar station life as their reasons to join the cruising expedition. On the contrary given that only a small amount of respondents motivated to visit the station. However, the first Chinese polar station – Great Wall Station still set a must-go destination in most of the Chinese Charter voyage and be promoted by Chinese tour agencies in the Antarctic peninsula materials, even the restricted regulation was introduced by the Ministry of Land and Resources of P.R. China.⁴⁰ The station visits may be related to the strong nationalistic feeling towards the station by Chinese visitors, and as a way for tour agencies to demonstrate their network and connections within the

Table 3. Primary motivation for visiting Antarctica ($n = 82$).

Primary motivation for wanting to visit Antarctica	Frequency	Percentage
Unknown/unique/special/curious about Antarctica	41	50%
Visit all seven continents	10	12%
Last frontier/wilderness/polar/snow and iceberg	8	10%
Wildlife/marine life	7	8%
Close to nature/beauty	4	5%
Adventure/challenge	3	4%
Self-discovery/learn ourselves	3	4%
Protect nature/environment	3	4%
Education/Science	2	2%
Experience station life	1	1%

Government. In contrast, such motivation was not recorded in previous studies involving Westerners. In addition, while none of the Chinese respondents was motivated by the history of Antarctic exploration, many western respondents were.⁴¹ For instance, one of the voyages in this study had a Zodiac cruising operation near Point Wild, Elephant Island. The Chinese visitors only focused on the wildlife and icebergs without referring to the historic significance of the site in the context of Shackleton's *Endurance* expedition and only a few of the visitors had heard about the story of *Endurance* before joining this voyage (personal communication with a passenger on 31 December 2017). It appears that Chinese visitors are not particularly interested in the human history of Antarctica and the voyage routes and sites visited may need to be adjusted to reflect their different Antarctic interests.

Table 4 below shows the breakdown of Chinese passengers' post-visit perceptions of Antarctica.

The vast majority of respondents (80%) demonstrated a stronger concern about protection of Antarctica as well as conservation of the environment after their visit. Specifically, 6% of visitors understood more about Antarctica after the voyage. Some respondents indicated that an Antarctic voyage is a journey of self-discovery (6%) while 3% of respondents indicated that there was nothing special at all. Yet, two respondents reported that the Antarctic experience enhanced their relationship with the natural world and all continents (2%) while inspiring them to travel more in the future (2%). These findings are different from Enzenbacher (1995) who reported that about 51% of respondents felt emotional or spiritual satisfaction because of the Antarctic journey; while 43% mentioned the beauty of its scenery.⁴² The diverse range of the perceptions of Antarctica after their visit had shown how different cultural backgrounds affect one's interpretation of Antarctica.

The overall mean in each CNS statement is shown in Table 5 above. The overall mean CNS score was calculated to be 3.73 ± 0.06 , which is slightly closer to the end-of-spectrum pro-environmental score of 5. This result indicated that the respondents had a reasonably close relationship with nature.

Compared to other CNS studies in North America and Europe, the respondents in this study performed not particularly high on the pro-environmental scores. A closer look at the CNS statements indicates that there are considerably different scores in a few statements.⁴³ For example, question number 6: (I often feel a kinship with animals and plants.), and question number 12: (When I think of my place on Earth, I consider myself to be a top member of a hierarchy that exists in nature.). To recode of question number 12 would be the meaning of we share the same role with other members in the exited nature, which have the score of 2.36 after reversely. The lower scores on these two items may indicate a slightly lower level of connections with nature among the Chinese visitors. It is noted that an

Table 4. Perception of Antarctica after visit ($n = 60$).

Perceptions of Antarctica after visit	Frequency	Percentage
Protect/conservation of the environment/Appreciation for the place or wildlife	48	80%
Enrich knowledge/information/education	4	6%
Understand oneself	4	6%
Nothing special	2	3%
Relationship with wildlife and landscape/seventh continent	1	2%
Want more travelling	1	2%

Table 5. The overall means in each CNS statement (5-point Likert scale, with a rating ranging from 1 (strongly disagree) to 5 (strongly agree)).

CNS scale statement	Total mean
1) I often feel a sense of oneness with the natural world around me.	3.68
2) I think of the natural world as a community to which I belong.	3.95
3) I recognise and appreciate the intelligence of other living organisms.	3.53
4) I often feel disconnected from nature.	1.47*
5) When I think of my life, I imagine myself to be part of a larger cyclical process of living.	3.79
6) I often feel a kinship with animals and plants.	3.22
7) I feel as though I belong to the Earth as equally as it belongs to me.	3.47
8) I have a deep understanding of how my actions affect the natural world.	3.47
9) I often feel part of the web of life.	3.76
10) I feel that all inhabitants of Earth, human and nonhuman, share a common 'life force'.	3.94
11) Like a tree can be part of a forest, I feel embedded within the broader natural world.	3.91
12) When I think of my place on Earth, I consider myself to be a top member of a hierarchy that exists in nature.	2.64*
13) I often feel like I am only a small part of the natural world around me, and that I am no more important than the grass on the ground or the birds in the trees.	3.47
14) My personal welfare is independent of the welfare of the natural world.	1.89*

* Items 4, 12 and 14 were reversely worded, and recoded in the same direction with other items so that a high score indicates a pro-CNS response.

individual's response to the CNS may be influenced by their education, income within countries, living conditions and political orientation.⁴⁴ Given that these factors are very different in China compared to other countries the lower scores in response to questions 6 and 12 are perhaps not surprising.

Potential anthropogenic impacts on Antarctica

Tin et. al.'s (2016) study indicated that although overall Antarctic visitors carried a common perception of wilderness being a place in which human impacts are limited, the difference of interpretation of wilderness can be found from the different cultures and background. In her study, she notes that:

*'Chinese respondents were the most likely to value wilderness for its scientific values and the least likely to value the experiential, psycho-spiritual and bequest values of wilderness.'*⁴⁵

Without the convergence of wilderness perceptions, it is hard to reach a consensus over what 'wilderness values' are or how to protect them. Wilderness values are very important, and represent the most important value associated with Antarctica for the global public. Tourists, who visit Antarctica, often perceive these potential values. The Antarctic Treaty System (ATS) also specifically mentioned that wilderness values of Antarctica, which are associated with science or other human use, are the primary values that must be protected.⁴⁶ The wilderness value and the need to protect the Antarctic environment is also emphasised in the 'Antarctic ambassadorship' concept first created by Lars-Eric Lindblad who started ship-borne tourism operations in Antarctica with a strong environmental ethic that is still applied today.⁴⁷ The concept has been embraced by IAATO in their Article II, Section I of IAATO bylaws:

*'To create a corps of ambassadors for the continued protection of Antarctica by offering the opportunity to experience the continent first hand.'*⁴⁸

However, a number of studies mentioned that the concept of ambassadorship was questionable⁴⁹ (Eijgelaar, Thaper, & Peeters, 2010; Maher, 2010; Vila, Costa,

Angulo-Preckler, Sarda, and Avila, 2016). Compared to other countries, there is far less interest in wilderness protection and recreation in China.⁵⁰ It is questionable that the ‘Ambassadorship’ concept can be applied to Chinese visitors, who hold a different view of interpretations and perceptions of Antarctica. Therefore, a further examination of the relationship between the various Antarctic perceptions and the ambassadorship concept is necessary.

Moreover, different tourism styles in Antarctica may also influence Chinese visitors’ experience as well as the existing management system. Jin’s (2017) study showed that in general tourists from China have limited perception of cognitive and affective attributes of the tourism activities.⁵¹ For Chinese, sightseeing and relaxing is the main concept of travelling. Unlike tourists from other countries who tend to make adequate preparations beforehand for their trip by searching for independent information about the places they intend to visit, Chinese tourists are more likely to travel in groups and to rely on the travel agents to provide information and describe the experiences they would obtain.⁵² In addition, Chinese travel agencies play an essential role in providing the visitors’ Antarctic experience because they determine where visitors should go (personal communication with the Chinese tour leader, 31 December 2017). Thus, Chinese Antarctic visitors have a strong intention of visiting only a few Antarctic landing hotspots on their fully chartered voyage, such as Half Moon Island, Paradise Harbour, and Great Wall Station even though the Antarctic Peninsula region would offer a plethora of various landing sites and experiences. Those factors exert a direct influence on Chinese visitors’ Antarctic experience. It is worth noting that those high numbers of landings concentrated among relatively few sites and concentration of marine vessel traffic may increase the potential for human–wildlife conflict in the region.⁵³

Moreover, Chinese travellers insist on only visiting the pre-arranged landing sites shown on their itinerary, regardless of prevailing weather conditions and operational risks involved (personal communication with the Chinese tour leader), 31 December 2017). In addition, the expedition companies have to bid for the site they want to visit before the season start, and they do not always get the ones they want. Hence, the agencies that sell the product can and should only give a general idea of which places will be visited, which is not always in Chinese agencies. This can be explained by the notion that Chinese visitors often do not understand the nature of an expedition which implies that all landings and Zodiac cruises depend on the weather, wind and ice conditions as well as the expedition team’s experience. Understanding the characteristics of Chinese tourists would help to anticipate potential anthropogenic impacts at landing sites and inform management decisions regarding how to manage activities. Given Chinese passengers’ dependence on travel agencies for their trip arrangements, less flexibility of pre-arranged itineraries and the rapid growth of Chinese market to the Antarctica, it is necessary to educate passengers about the risks and impacts associated with their activities and to inform travel agencies about the potential impacts of their tour package on the Antarctic environment, so as to retain the aesthetic and wilderness value of the region and prevent ‘Disneyfication’ of Antarctica.

Conclusions

Tourists from different cultures value nature in different ways and thus have different connections with the natural environment. Although the Antarctic continent seems physically and mentally far away from most people, it still connects to the daily life of everyone on Earth as well as building up our human values on wilderness, heroic exploration and international co-operation.

On the voyages that the first author participated in, the expedition staff including the expedition leader were nationals of western countries such and hence the Antarctic tourism product was delivered with a western approach to the process of experiencing the continent and to promoting the ‘ambassadorship’ concept for visiting Antarctica. This meant that the eastern approaches (or other cultural perspectives) in connecting with Antarctica was neglected. This inclusive view of Antarctica is not always universal, and many human communities instead hold an exclusive and reductionist view of nature⁵⁴ (Pilgrim & Pretty). Therefore, understanding cultural diversity in the Antarctic experience would bring better advocacy for conservation as well as ecosystem health of Antarctica. Certainly, further investigation is necessary to fully explore the implications and possibilities of these issues as the demographics and nature of Antarctic tourism change.

The maintenance of cultural diversity into the future, and the knowledge, innovations, and outlooks it contains, increases the capacity of human systems to adapt and cope with change.⁵⁵ The cross-cultural perspective of this research is not limited to the Antarctic Peninsula. A broader geographical investigation could involve adding more perspectives from different areas of the world. Hopefully, more studies will emerge in the future and help to establish the most effective culture-specific methods for experiencing and interpreting the Antarctic landscape in the most meaningful way possible. This paper not only addressed cultural differences in experiencing Antarctica, but also builds up cultural perspectives of ‘our’ Antarctica by adding the Eastern interpretations to Antarctica. Due to a number of limitations, this research only presents a small piece of the puzzle and requires more research to build up a more complete picture of the continent and the cross-cultural differences in experience. Future research may need to apply the same survey instrument to both Chinese visitors and other western visitors so that the differences in CNS, motivations, perceptions can be examined cross-culturally and statistically.

Notes

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