Tourism Management 71 (2019) 84–98

Contents lists available at ScienceDirect

Tourism Management

journal homepage: www.elsevier.com/locate/tourman

A structural model of liminal experience in tourism

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ARTICLE INFO

Keywords:
Liminal experience
Tourscape
Sensation-seeking
Emotional arousal
Yanyu

ABSTRACT

Tourism destinations serve as liminal places where tourists can be temporarily free of their secular obligations, therefore cultivating a fertile ground for Yanyu (艳遇), a typical liminal experience, to grow. However, little is known about which factors drive tourists' liminal experiences. Based on stimuli-organism-response (SOR) theory and sensation seeking theory, this study examines the impact of tourscapes and sensation-seeking on liminal experiences by using data collected in Lijiang, a city named "the capital of Yanyu", in China. The findings reveal that physical and social tourscapes have positive effects on liminal experiences, and that socially symbolic and natural tourscapes have positive effects on emotional arousal and liminal experience. Emotional arousal mediates the effects of socially symbolic and natural tourscapes on liminal experience, and tourists' sensation-seeking motivations have a positive significant effect on those liminal experiences. Lastly, the theoretical and managerial implications of the study's findings are discussed.

1. Introduction

For a long time, China's society has been strongly influenced by the moral and intellectual codes of Confucianism. Chinese society is conservative in terms of gender relationships in daily life, but holidays are typically considered as a temporary escape from the daily norms of life as normal responsibilities are suspended (Weichselbaumer, 2012). This liminal transition phase has the "potential for an enriching experience in short, limited and constrained time periods that makes holidays so different from other pursuits" (Ryan & Kinder, 1996, p. 509), and in a liminal world, people can behave in a way as if they are free from constraints and obligations. Yanyu, a rising tourism phenomenon which originally meant a favorable opportunity for an encounter with a beautiful woman and which violates Chinese cultural beliefs, values and traditions, becomes acceptable and even natural in this liminal world (Xu & Ye, 2016). Tourism destinations, therefore, cultivate a fertile ground for Yanyu to grow. For instance, Lijiang, a popular tourist destination in Yunnan Province, has earned the reputation of "the capital of Yanyu" among Chinese tourists (Sun & Wang, 2012), and "seeking Yanyu" has become an important motivation for many tourists there (Cui, He, & Xu, 2016). Lijiang is not unique. Other historical towns are also observed to have similar phenomena, such as phoenix town in Hunan province, Yangshuo in Guangxi Autonomous Region (Xu & Ye, 2016).

Although the phenomenon of Yanyu in tourism has gained increased public attention in recent years, few studies have specifically examined this issue. Hong (2007) was the first to report the phenomenon of Yanyu. Then, other researchers pointed out that gender relationships among tourists in Lijiang are different from those in daily life (Xu & Ye, 2016), and that Yanyu is an experience transcending secular life and serves as a way of fulfilling tourists' psychological needs (Liu & Sun, 2015). While little research has been done on Yanyu tourism, a closely related topic – sex/romance tourism – has received considerable attention in Western literature (e.g., Jeffreys, 2003; Oppermann, 1999). Previous studies on Yanyu tourism and sex/romance tourism have deepened our understanding on its nature as a liminal experience, but research gaps are also identified. First, previous research on Yanyu tourism and sex/romance tourism has been conducted using qualitative methods (e.g., field observations, interviews and web data), and how to conceptualize tourism as a liminal experience from a quantitative perspective is a neglected area. Second, since only certain tourism destinations (e.g., Lijiang, Fenghuang, Wuzhen, & Tongli) are constructed as Yanyu destinations, it is interesting to ask whether destination-level factors have an influence on liminal experiences, and furthermore, how do these factors influence a liminal experience? Third, individuals have different attitudes towards novel experiences and therefore different willingness to pursue such experiences due to their different motivations (Zuckerman, 1994). So, do individual-level factors have an influence on liminal experiences?

In order to address these research gaps, this study chose the historic town of Lijiang to empirically investigate the antecedence of tourists' liminal experiences (e.g., Yanyu experience) in a destination.

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https://doi.org/10.1016/j.tourman.2018.09.015
Received 17 September 2018; Accepted 21 September 2018

Specifically, two theories are used to develop the research model, as follows. The stimuli-organism-response (SOR) theory from environmental psychology (Mehrabian & Russell, 1974) was borrowed to study the effects of tourscapes, which means the general atmosphere in a tourism destination experienced by tourists as it relates to emotional arousal and liminal experience. Then, sensation seeking theory was employed to investigate the influence of sensation-seeking on liminal experience. To our knowledge, this study is the first attempt to empirically examine the antecedents of liminal experience in a tourism context. By investigating the influences of destination-level and individual-level factors on tourists' liminal experience, it is hoped that this article will make several theoretical contributions to liminal experience research, as well as in servicescape, environmental psychology, destination image, and sensation-seeking theories. Furthermore, this study will provide valuable managerial insights for tourism destination marketers in designing favorable tourscapes and targeting different segments according their motivations, e.g., sensation-seeking.

For these objectives to be achieved, the article is structured as follows. The first section is a review of the literature on Yanyu as a liminal experience as well as on tourscapes, emotional arousal, and sensation-seeking, and hypotheses are developed in the second section. The third section presents the methodology and the procedures for data collection and analysis. The results for the various analyses are then discussed, and finally, the conclusions are presented and suggestions are made for further research.

2. Literature review

2.1. Yanyu as a liminal experience

The term "liminal" was first developed by French folklorist Van Gennep (1960) for use in anthropology to describe the characteristics of rites in different stages of life; he divided the rites of passage into three stages: separation, liminal period, and reentry. This concept was taken up by Turner in his series of works and was extended into other areas, including sociology and human geography (Ma, 2010). Turner (2017) mainly focused on the second stage of Van Gennep's rites of passage (i.e., liminal period) and defined it as "units of space and time in which behavior and symbolism are momentarily enfranchised from the norms and values that govern the public lives of incumbents of structural positions" (Turner, 2017, p. 166). Turner (2017) indicated that the status of an individual in a liminal period is ambiguous in social structure. He believed that this ambiguity is important because it implies a possibility and openness on resisting social structure. People in a liminal period go through two different types of temporary and transitional stages: an existential state in which people's mental state has changed, and a symbolic state in which people challenge established social structures, norms and roles in a symbolic way.

Liminality is widely used in tourism contexts. In the tourism world, destinations serve as liminal spaces where tourists experience an anonymous environment and an evasion of social control, responsibility, and obligation. It also means freedom for fantasy, imagination and adventure, including love (Trauer & Ryan, 2005). Graburn (1989) believed that tourism is a ritual, and that in this process people experience separation from their routine lives and enter into a liminal experience state, and then re-incorporate into routine society. Bui, Wilkins and Lee (2014) confirmed travel (backpacking) as a liminal experience in an Asian context.

The word "Yanyu" (艳遇) in Chinese is composed of two characters, "yan" (艳) and "yu" (遇). The adjective "Yan" means bright-colored, beautiful, romantic, and amorous, while the noun "Yu" means an opportunity or encounter, and treatment (Modern Chinese Dictionary, 2009). In Chinese classical literature, Yanyu describes a favorable opportunity for an encounter with a beautiful woman. Now it can simply mean a beautiful encounter associated with gender and sexual relationships (Xu & Ye, 2018). A review of the literature (Hong, 2007; Liu & Sun, 2015; Xu & Ye, 2016, 2018) reveals that several dimensions collectively constitute a comprehensive understanding of the Yanyu concept: namely, romance and relaxation, opportunities to encounter, a sense of loss, and aberration. Romance and relaxation refer to an intimate, romantic, or even sexual relationship. Opportunities to encounter means that a tourist may meet strangers of the opposite gender in a Yanyu destination by chance, or in other words, Yanyu is something that may come with luck, and not by deliberately searching. Sense of loss refers to the feelings of depression and anxiety when two parties in a Yanyu relationship are separated from each other after traveling; and aberration means that tourists do something they would not do in everyday life because these things are incompatible with general social norms, but in a liminal space, these norms can be accepted. Still, not everyone dares to pursue a Yanyu experience, even when they are out of their daily lives.

In the tourism literature, sex/romance tourism is very much related to Yanyu tourism, because both are phenomena in tourism destinations and associated with gender/sex. Sex/romance tourism means traveling for the purpose of engaging in sexual activity with others, particularly with local people (Jeffreys, 2003). Several differences should be considered between Yanyu and sex/romance tourism, however. First, sex/romance tourism typically involves exploitation (Oppermann, 1999), that is, rich tourists from developed countries engage in sexual activity with poor local people in underdeveloped countries (Richter, 2005). In Yanyu tourism, the intimate relationship usually occurs between tourists who are both strangers to the destination. Second, monetary exchange is considered the most important characteristic of sex tourist-sex worker relationships (Oppermann, 1999), while there is no commercial relationship in Yanyu tourism. Third, compared with sex/romance tourism between tourists and local residents, which typically involves sexual relationships (Jeffreys, 2003), Yanyu often means relatively free and easy interactions between male and female tourists; it serves as a way of fulfilling a psychological need and does not necessarily connote sexual relationships (Liu & Sun, 2015; Xu & Ye, 2016). Fourth, sex/romance tourism is often planned, but Yanyu emphasizes chance meetings and luck. Therefore, Yanyu enables tourists to obtain a special feeling different from other intimate relationships. Fifth, in sex/romance tourism, sometimes the relationship is maintained after the tourist leaves the destination, and the people may even get married (Herold, Garcia, & Demoya, 2001); however in Yanyu tourism, the relationship terminates after the trip (Hong, 2007). Lastly, sex/romance tourism is typically a cross-cultural phenomenon, while Yanyu is rooted in the Chinese context and represents a Chinese-specific cultural phenomenon. To sum up, Yanyu, as a liminal experience is a unique social and cultural phenomenon in Chinese society, and needs to be further investigated.

2.2. Tourscape

A tourscape represents the general atmosphere experienced by tourists, which is based on the concept of the servicescape as developed in service marketing. Bitner (1992) first coined the term servicescape and defined it as a combination of intentionally designed and controllable dimensions of physical settings which can influence customers' psychological and behavioral responses. While Bitner focused on physical environments, Baker, Grewal, and Parasuraman (1994) included social factors into the idea of a servicescape which involve people who are within a service setting, such as the numbers, types, and behaviors of other customers. Tombs and McColl-Kennedy (2003) further proposed the concept of a social servicescape and asserted that customer behavior is influenced by both the physical conditions of the environment and the social meanings embedded into the purchase occasion. Rosenbaum (2009) added "socially symbolic" servicescape to Bitner's (1992) servicescape framework, indicating that environmental elements are important in shaping the behavior of customers with unique ethnic, sub-cultural, or marginalized societal statuses, such as Jews and

homosexuals. Socially symbolic servicescapes are meant to be interpreted by specific groups of consumers rather than all consumers. Drawing on attention restoration theory, which suggests that a natural environment has the potential to help people recover from mental fatigue (Kaplan, 1995), Rosenbaum (2009) asserted that restorative elements should also be included in servicescapes, and therefore he introduced natural (or restorative) stimuli into the concept of a servicescape and posited that these stimuli include being away from daily life, fascination, and compatibility. Later, Rosenbaum and Massiah (2011) summarized previous research and developed an expanded servicescape framework that includes four dimensions: physical, social, socially symbolic, and natural. The application scope of the term servicescape has also been extended from stores and restaurants to festivals (festivalscape; Lee, Lee, Lee, & Babin, 2008), shopping streets (streetscape; Yüksel, 2013), exhibitions (boothscape; Woo & Jun 2017), sports (sportscape; Lambrecht, Kaefer, & Ramenofsky, 2009), and the Internet (cyberscapes; Williams & Dargel, 2004), adding to its strong explanatory usage.

Borrowing from the literature on servicescapes, a tourscape is conceptualized in this article as the physical, social, symbolic, and natural stimuli experienced by tourists in a destination. Specifically, a physical tourscape includes ambient conditions (e.g., lighting and music), space (e.g., mountains and lakes), and signs, symbols, and artifacts (e.g., flags and street decorations) (Bitner, 1992). This dimension was termed by Mossberg as an experiencescape (Mossberg, 2007). A social tourscape involves the people within a tour environment (Baker et al., 1994), and represents a social interaction, whereas a socially symbolic tourscape refers to signs, symbols, and artifacts that have socio-collective meanings that influence the behaviors of tourists with a unique sub-culture (e.g., in this article, Yanyu tourists) (Rosenbaum & Massiah, 2011). The difference between the dimension of signs, symbols, and artifacts in a physical tourscape and a socially symbolic tourscape is that the former are “general” signs that have common meanings among tourists, while the latter have unique meanings to Yanyu tourists (Bitner, 1992; Rosenbaum & Massiah, 2011). For example, among Yanyu tourists, love doodles can evoke associations about a romantic or sexual relationship, but for non-Yanyu tourists, they are just pictures with no special meaning. A natural tourscape provides a context where tourists can escape from their normal roles and engage in unrestrained behavior (Rosenbaum & Massiah, 2011), thereby facilitating social interactions among Yanyu tourists. In other words, Yanyu tourists are not judged by their Yanyu identities. Therefore, a natural tourscape in a destination has the potential to provide tourists with feelings of being away, fascination, and compatibility (Rosenbaum, 2009). Being away gives tourists a temporarily escape from routine life, as they are in a liminal space when traveling; fascination means that tourists can direct their attention to things they are interested in; and compatibility means that tourists can feel a sense of belonging in the destination and do things they enjoy (Rosenbaum & Massiah, 2011).

Although the concept of a tourscape is derived from that of a servicescape, two differences between them should be stressed. First, most of the studies on servicescapes have focused only on in-store environmental stimuli, while tourscapes involve multiple stimuli in a large space without obvious physical boundaries. Second, in a typical service setting such as a store or restaurant, social interaction only lasts for a very short time; however, traveling and staying at a destination may involve a relatively long time. In short, tourscapes and servicescapes are similar at the conceptual level, but in a tourscape, at the operational level, there may be differences in the emphasis given to spatial scopes and time spans.

2.3. Emotional arousal

Emotion plays an important role in determining tourist experiences (Prayag, Hosany, Muskat, & Del Chiappa, 2017). According to Bagozzi, Gopinath, and Nyer (1999), emotion means a psychological state of preparation that arises from cognitive appraisals of events or thoughts. One of the most widely used frameworks to study emotion in consumer research is the pleasure-arousal-dominance (PAD) framework developed by Mehrabian and Russell (1974), in which three dimensions, pleasure, arousal, and dominance, are used to represent all human emotional responses towards environments. The PAD framework was first used in environmental psychology to evaluate the effects of environments on human experience and behavior. Later, marketing researchers used this framework to assess the effect of emotional experiences on shopping behaviors (e.g., Mazaheri, Richard, Laroche, & Ueltschy, 2014).

In the PAD framework, pleasure refers to the degree that an individual feels good, joyful or happy; arousal is considered as the extent to which an individual feels excited, stimulated, alert or active; and dominance means the degree to which an individual feels unrestricted. However, previous studies that tested the framework have found that dominance did not significantly influence human behavior, and therefore it has been removed by many researchers (Donovan & Rossiter, 1982; Donovan, Rossiter, Marcoolyn, & Nesdale, 1994). Furthermore, it is found that arousal has a direct effect on pleasure both in marketing (Chebat & Michon, 2003; Miniero, Rurale, & Addis, 2014) and tourism literature (Bigné, Andreu, & Gnoth, 2005), implying that arousal is a more fundamental type of emotion. Therefore, the current study only chooses arousal to measure emotion, which is consistent with previous studies (e.g., Kim, Kim, & Bolls, 2014). Emotional arousal means that an individual experiences a state of feeling “activated”, and it is believed that tourscapes in a Yanyu destination can evoke tourists to think about intimate and romantic relationships. In other words, emotional arousal represents the degree to which tourists feel prepared for Yanyu experiences. It is important to note that in the context of consumption, there are a wide variety of individual emotional states (e.g., Han, Back, & Barrett, 2010); however, some categories such as fear and anger may not apply to individuals in a Yanyu context. Therefore, this study only focuses on contents that are related to intimate relationships.

2.4. Sensation-seeking

The concept of sensation-seeking refers “the need for varied, novel and complex sensations and experiences and the willingness to take physical and social risks for the sake of such experience” (Zuckerman, 1994, p. 27). Arnett (1994) studied sensation seeking from a motivational perspective, and noted that the desire for experiences with intensity and novelty are one motivation for norm-breaking and antisocial behavior. Sensation seeking has also been considered as a motivation for risk-taking behaviors such as skiing, rock climbing, kayaking, and stunt flying (Slanger & Rudestam, 1997). Sensation-seeking can be divided into four sub-dimensions (Zuckerman, 1994), as follows. Thrill- and adventure-seeking is defined as the need for outdoor activities involving unusual sensations and risks; experience-seeking involves new sensory or mental experiences through unconventional choices, also including psychedelic experiences, social nonconformity, and desires to associate with unconventional people; disinhibition involves a preference of “out of control” activities such as wild parties, drinking and illegal activities; and boredom susceptibility means an aversion to the routine, repetitive, and monotonous.

Studies have shown that sensation-seeking is positively linked to several behaviors, such as the expression of personal thoughts and feelings (Franken, Gibson, & Mohan, 1990), a preference for social interactions (Ellis, 1987), reactivity to social rules (Chirivella & Martínez, 1994), alcohol and drug use (Stautz & Cooper, 2013; Vanderveen, Hershberger, & Cyders, 2016), and risky sexual behavior (Dir, Coskunpinar, & Cyders, 2014).

Sensation-seeking has been used in the field of tourism to understand the preferences and behaviors of tourists. For example, Galloway and Lopez (1999) observed that sensation-seeking was positively

correlated with actively seeking and visiting wildlife environments for stimulation. Fontaine (1994) demonstrated that sensation-seeking is a basis for motivation for travel. Pizam, Ganghoan, Reichel, Boemmel, Lusson, & Steynberg et al. (2004) found that sensation-seeking is positively related to the likelihood of engaging in numerous activities, such as camping or going to bars. Galloway, Mitchell, Getz, Crouch, and Ong (2008) studied the effect of sensation-seeking on the attitudes and behaviors of wine tourists and found that it was significantly related to spending on and drinking wine, as well as the frequency of visits to wineries and the extent to which people were engaged at wineries. Lepp and Gibson (2008) found that sensation-seeking can influence tourists' travel styles and destination choices, and that tourists higher in sensation seeking were more likely to have traveled internationally and to have traveled to risky destinations. Fuchs (2013) observed that backpackers with high levels of sensation-seeking were more concerned about the consequences of the behaviors and activities they might have been attracted to as part of their quest for sensation.

The literature presented above suggests that sensation-seeking should be a good potential antecedent of seeking a liminal experience. The concept of sensation-seeking describes an individual's need for varied and novel experiences as well as the willingness to take risks for the sake of such experiences (Zuckerman, 1994). Therefore, it is expected that individuals with high levels of a sensation-seeking are more likely to pursue Yanyu experiences.

3. Hypothesis development

The influence of the physical environment of a tourism destination on the emotions and experiences of tourists can be explained by the Stimulus-Organism-Response (SOR) model (Mehrabian & Russell, 1974). The SOR model describes how individuals react to stimuli in the environment by using three steps: Stimulus, Organism and Response. In the present study, tourscapes are considered as environmental stimuli (S) external for a tourist and could induce his/her internal evaluations (O), which in turn cause behavioral responses in the tourist (R). In other words, stimulation and tourists' subsequent behavioral responses are mediated by an organismic component (Lin & Kuo, 2016). Consumers are largely influenced by tangible cues in a service encounter (Baker, 1987), and the relationship between physical environment and emotion has been confirmed extensively in the literature (Lee et al., 2008). For instance, a physical servicescape is positively associated with customer emotion in theme restaurant settings (Kim & Moon, 2009) and upscale restaurants (Ryu & Jang, 2007). Walsh, Shiu, Hassan, Michaelidou, and Beatty (2011) confirmed that store-environmental cues such as music positively influence consumers' arousal. Similar results have also been found with regard to events (Grappi & Montanari, 2011; Mason & Paggiaro, 2012). In the tourism context, Cui et al. (2016) found that the ancient buildings and beautiful landscapes in Lijiang make tourists feel a sense of romance. Arousal is a psychological state of being stimulated, activated or excited when a tourist's emotions related to intimate relationships are activated and he/she is prepared to engage in activities of this kind (Ryu & Jang, 2007). Considering these previous research findings, a physical tourscape can cause arousal in tourists and shape their experience through novelty, complexity, variability, and of the stimuli. Therefore, we posit the following hypothesis:

H1. Physical tourscapes positively influence: (a) emotional arousal and (b) liminal experience.

Social tourscapes, similar to physical environments, can elicit specific emotional responses in a consumption experience (Miao & Mattila, 2013). In a tourism context, tourists may affect one another either indirectly, by being part of the environment, or directly through interpersonal interactions (Bitner, 1992). The presence of other tourists can affect tourists in an environment even without direct interaction (Kim & Lee, 2012). For example, Grove and Fisk (1997, p.69) observed that over half of the tourists in their study had "an occasion when a visit to a tourist attraction was significantly affected by the presence of others." Interactions among tourists, including both verbal and nonverbal behaviors, have a significant impact upon customers' emotions (Wu, 2007). A tourism destination, especially a Yanyu destination, is considered a liminal space, and this liminal world provides an anonymous environment and an evasion of social control, responsibility, and obligation (Xu & Ye, 2016), and therefore tourists can interact with each other freely and without anxiety. Thus, we posit the following hypothesis:

H2. Social tourscapes positively influence: (a) emotional arousal and (b) liminal experience.

A socially symbolic tourscape has a common interpretation among Yanyu tourists. Research in non-tourism contexts has confirmed the impacts of socially symbolic servicescapes on customers' emotions. For example, Rosenbaum (2005) proposed a framework to reveal how homosexual consumers interpret symbols within consumption settings and how these symbols impact approach/avoidance behaviors. Hu and Jasper (2007) found that personalized customer service and in-store graphics with social meanings can predict customers' impressions of a store. Socially symbolic tourscapes, such as the love locks and love stories contained within a Yanyu destination, have salient meanings to Yanyu tourists, and hence will evoke their emotions and the desire to build romantic relationships with others. Hence we posit:

H3. Socially symbolic tourscapes positively influence: (a) emotional arousal and (b) liminal experience.

Natural or restorative tourscapes are conceptualized as including three properties: being away (e.g., from home), fascination, and compatibility. Being away provides tourists a break from daily concerns and a feeling of escaping to a different place. Fascination means that tourists want to be in a destination because something in it captures their attention (Rosenbaum & Massiah, 2011). Compatibility means that when tourists are in a compatible environment, they can engage in social activities that are free from the constraints that often hinder human interactions, such as occupational roles or socio-economic statuses (Oldenburg, 1999). A restorative servicescape is found to have a positive significant effect on customer satisfaction, customer loyalty, and the willingness to spread positive word of mouth, especially in a video servicescape context (Rosenbaum, 2009). Based on such considerations, we hypothesize that:

H4. Natural tourscapes positively influence: (a) emotional arousal and (b) liminal experience.

When emotions are activated, they usually lead to some kind of action by the individual, or in other words, they have consequences (Ladhari, Souiden, & Dufour, 2017). Zajonc (1980) proposed that an individual can take action based on an emotional feeling, either with even a low level of cognitive activity or without. For example, customers' emotions influence their enjoyment of shopping in a store (Donovan & Rossiter, 1982). High arousal congruency increases consumers' perceptions of pleasure and satisfaction (Mattila & Wirtz, 2006), and Lin and Kuo (2016) observed that tourists' emotions are positively related to satisfaction and behavioral intentions. Based on the review of the literature on emotion, it is reasonable to assume that there is a positive relationship between emotional arousal and liminal experience. Thus, we hypothesize that:

H5. Emotional arousal positively influences liminal experience.

The SOR model suggests that environmental stimuli influence individuals' emotional states, and that these emotions in turn determine approach-avoidance behaviors (Mehrabian & Russell, 1974). In other words, emotions are considered as consequences of environmental perceptions and as antecedents of customer satisfaction and intentions (Lee et al., 2008). Positive moods could be shown to cause more favorable evaluations of a store and therefore influence customers to buy

more items and make more spontaneous purchases (Spies, Hesse, & Loesch, 1997). Thus, we hypothesize that:

H6. Emotional arousal mediates the positive effects of: (a) physical (b) social (c) socially symbolic and (d) natural tourscapes on liminal experience.

In addition, personality can predict individual behavior, especially in a situation where social roles are unstructured and individuals have the discretion to determine their own behaviors (Judge & Zapata, 2015). According to situational strength theory, a "weak" situation does not necessarily involve normative expectations of behavior, and therefore, weak situations can lead individuals to behave in ways that for them are the most natural and comfortable (Dalal & Meyer, 2012). A Yanyu tourism destination is considered as a liminal place far away from "normal" social structures and obligations (Turner, 2017), and constitutes a typical weak situation. Therefore, in the tourism context, we can predict that tourists' personalities will have an important impact on their behaviors and experiences, including their liminal experience.

Individuals are considered to vary in their ability to tolerate various sensations, characterized by the extent of a person's desire for novelty and intensity of sensory stimulation. It has been confirmed that sensation-seeking is positively correlated with a variety of behaviors such as adventure travel, preference for intense experiences, dislike of structured and formal situations, and proneness to boredom under restrained and repetitive situations (Galloway & Lopez, 1999). High-sensation-seekers prefer to be engaged in adventurous and challenging tourist activities (Galloway, 2002). Yanyu is usually related to gender and sexual relationships, and is a sensitive word in Chinese society; people are reluctant to discuss Yanyu frankly in normal situations (Xu & Ye, 2016). A tourist needs courage to seek Yanyu in a tourism destination, and according to sensation-seeking theory, high-sensation seekers are more likely to prefer this novel and varying experience and are more likely to take risks to pursue this experience. Furthermore, in a tourism context, which is considered as a weak situation, high-sensation tourists are more likely to engage in liminal activities than low-sensation seekers, and hence have a deeper liminal experience. Thus, we posit:

H7. Sensation-seeking positively influences liminal experience.

Destination familiarity refers to the amount of destination-related knowledge accumulated through information searches, various experiences, ongoing involvement and learning (Gursoy, 2011), and tourists' levels of familiarity with a destination has been found to have a major influence on their experience, such as perceptions of a destination's unique image (Lin & Kuo, 2018), their satisfaction (Sun, Chi, & Xu, 2013) and intention to visit (Bianchi, Milberg, & Cúneo, 2017). As a liminal experience, Yanyu is an intimate relationship that usually develops between tourists who are strangers to the destination. The destination serves as an unfamiliar environment to tourists which facilitates people to temporarily abandon normal norms and accept "abnormal" temporal relationships. In this sense, destination familiarity may have a potential influence on liminal experience, and therefore, in the present study, we have added "destination familiarity" into the model as a control variable.

To sum up, the hypotheses model is depicted in Fig. 1.

4. Research methodology

4.1. Study location

Lijiang, located in northwestern Yunnan province, China, was chosen as the focus of this study for its high brand awareness and reputation as a Yanyu destination among Chinese people. Lijiang is a multi-ethnic community which includes Han, Naxi, Yi, Lisu, Pumi, Bai, Zang, and others. The Old Town of Lijiang is located in Lijiang City, which is a UNESCO Heritage Site. The old town may date as far back as the Song Dynasty (13th century), and was once a hub on the ancient tea horse road. The old town of Lijiang differs from other ancient Chinese towns in architecture, history and the culture of its indigenous Naxi people. Tourist arrivals reached 35 million in 2016, with tourism revenues of RMB 60.9 billion (or 9.2 billion U.S. dollars) in the same period (Lijiang Tourism Development Committee, 2017).

Lijiang has earned the name of "the capital of Yanyu" among Chinese tourists in recent years. Yanyu has become a significant attribute of Lijiang's destination image (Sun & Wang, 2012), and many young tourists travel to Lijiang to seek Yanyu (Cui et al., 2016). The name of Yanyu is a concomitant in the development of Lijiang tourism, and the media is an important driver in this process. Starting from 2003, a series of TV shows, novels and films on love affairs in Lijiang have been produced and have contributed to the formation of images of Lijiang (Liu & Sun, 2015; Xu & Ye, 2016). Nowadays, Yanyu slogans are everywhere in the old town, such as "girls are for being picked up in Lijiang", "all beauties are paper-tigers, and all men are tiger-killers", and so on (Xu & Ye, 2016).

4.2. Data collection and sample profile

Data for this study were collected using personal interviews from tourists in Lijiang, utilizing an intercept approach on the streets of the ancient town. Several trained interviewers were instructed to intercept tourists who passed through and ask them whether or not they were tourists. Only those who had completed or were approaching the end of their trips were asked to participate in this study. The assistants asked the tourists to fill out a self-administrated survey instrument. A total of 450 questionnaires were distributed and 422 valid ones returned, resulting in a 93.8% response rate.

The data in Table 1 indicate that among the 422 participants, 175 (41.5%) were male, 285 (67.5%) were aged 21–30, 324 (76.8%) had a college degree, and 143 (33.9%) earned a month income between RMB 3001 (US $452) and 5000 (US $753), and most (77.5%) of the respondents reported that it was the first time they had traveled to Lijiang.

4.3. Measurement

The survey questionnaire consisted of the following constructs: tourscape, emotional arousal, liminal experience, sensation-seeking, and destination familiarity. Considering that tourscapes are a newly developed concept based on servicescapes and that the measurement items may vary across destinations, we combined both deductive (i.e., literature review) and inductive (i.e., open-ended interview) methods to establish its measurements. Specifically, a preliminary list of measurement items for a tourscape was generated from a comprehensive review of related literature pertaining to servicescapes (Baker et al., 1994; Bitner, 1992; Rosenbaum & Massiah, 2011), festivalscape (Lee et al., 2008; Mason & Paggiaro; 2012), streetscape (Cox, 2013; Yüksel, 2013), and Yanyu literature (Cui et al., 2016; Liu & Sun, 2015; Sun & Wang, 2012; Sun, 2014; Xu & Ye, 2016; Xu & Ye, 2018), as well as the broader literature on destination image (Chen & Phou, 2013; Martín & Del Bosque, 2008). We also conducted preliminary open-ended interviews with tourists in Lijiang to identify important environmental cues. These procedures determined 29 measurement items. Five items adapted from previous studies (Han, Heesup, Back, & Barrett, 2010; Hosany & Gilbert, 2010; Huang, 2004; Richins, 1997) were used to measure emotional arousal, in which only intimacy-related emotions were considered. Liminal experience (i.e., Yanyu experience in this article) is also a newly developed construct and was conceptualized as a second-order construct and measured by 18 items which were developed based on previous studies on Yanyu (Liu & Sun, 2015; Peng, 2013; Sun & Wang, 2012; Xu & Ye, 2016; Zhang, Xu & Wei, 2017) and participatory observation and open-ended interviews with tourists in Lijiang. Sensation-seeking was measured using the Brief Sensation-seeking Scale for Chinese (BSSS-C) by 8 items (Chen, Fang, Nydegger,

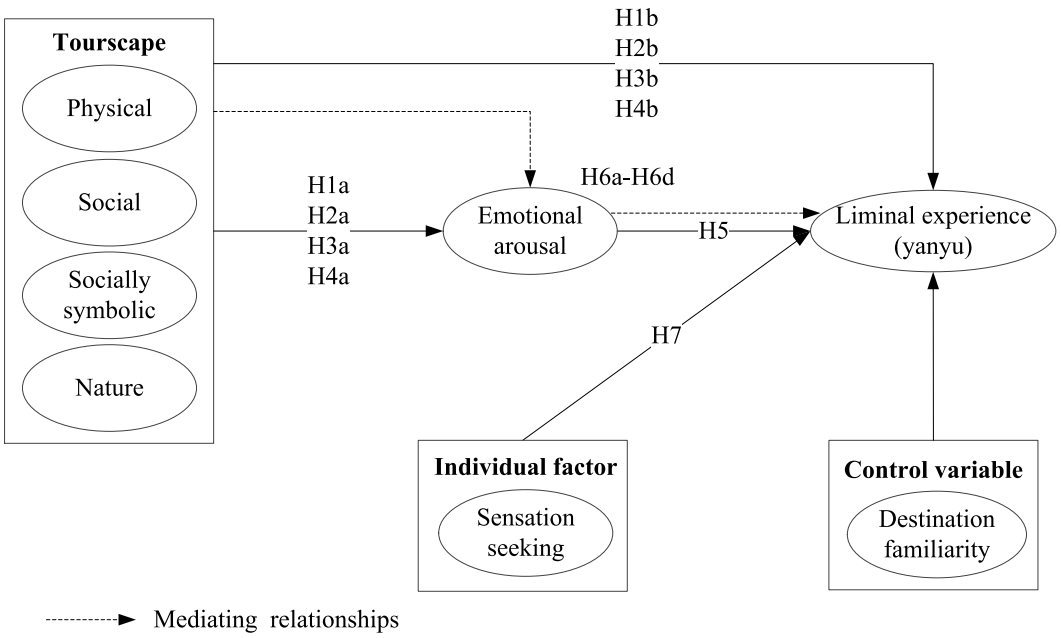

Fig. 1. The hypothesis model.

Table 1
Sample profile.

Variable	Value	Frequency	Percent
Gender	Male	175	41.5
	Female	247	58.5
Age	Under 20	15	3.6
	21–30	285	67.5
	31–40	65	15.4
	Above 41	57	13.5
Education	Senior high school and below	63	14.9
	University	324	76.8
	Master and above	35	8.3
Income	Under 1500	47	11.1
	1501–3000	72	17.1
	3001–5000	143	33.9
	5001–7500	82	19.4
	Above 7501	78	18.5
Time	1	327	77.5
	2–3	61	14.5
	4–5	11	2.6
	> 6	23	5.5

Jie, Ren, & Dinaj-Koci, Sun, & Stanton, 2013). Destination familiarity was measured by 3 items adapted from Gursoy and McCleary's (2004) study.

For the scales originally developed in English (i.e., emotional arousal, destination familiarity, and parts of items in tourscapes), a back-translation approach was used to obtain the Chinese version. The items for liminal experience were originally developed in Chinese, and no translation was involved. In order to make the items in the questionnaire as valid as possible, extensive suggestions and comments were solicited from scholars working in the tourism industry in mainland China, and corrections and revisions were made according to their suggestions. All constructs were assessed on a five-point Likert-type scale (1 = strongly disagree/very bad to 5 = strongly agree/very good).

Guided by Jarvis, MacKenzie, and Podsakoff's (2003) criteria for measurement model specification, "liminal experience" was conceptualized as a reflective second-order construct for three reasons. First, liminal experience was made manifest via its postulated sub-dimensions, with these sub-dimensions being made observable via their respective indicators. Therefore, causality was assessed from liminal experience to its sub-dimensions, and from these dimensions to their indicators and not vice versa. Second, the indicators for each construct have the same content; that is, the indicators can be interchangeable. Third, the sub-dimensions/indicators are expected to covary with each other. At the second-order level, there were theoretical reasons for expecting the sub-dimensions to be positively correlated (e.g., Cui, et al., 2016; Hong, 2007; Xu & Ye, 2016). At the first-order level, there were also theoretical bases for expecting the indicators to be positively correlated, given that they were designed with the intention of measuring the same sub-dimensions. In a similar manner to liminal experiences, tourscapes and sensation-seeking were both conceptualized as reflective constructs, which have been widely documented and empirically validated in previous studies (e.g., Lee, et al., 2008; Chen, et al., 2004).

4.4. Data analysis

Following preliminary data screening (for missing values and normality) and review of the descriptive statistics, the analysis strategy consisted of five stages. First, as the concept of a tourscape has been newly developed in this study, a confirmatory factor analysis (CFA) was performed to examine its reliability and validity. Second, to identify the dimensionality of liminal experience, both exploratory factor analysis (EFA) and CFA were employed. Third, the overall measurement model with the 8 key variables was evaluated for its reliability and validity. Fourth, the structural relationships between tourscape, emotional arousal, sensation-seeking, destination familiarity, and liminal experience were tested using structural equation modeling (SEM). Fifth, the mediating effects of emotional arousal between tourscapes and liminal experience were tested. SPSS 21.0, AMOS 20.0 and Mplus 7.0 software was used to complete the analyses.

5. Results

5.1. Missing data and multivariate normality

The data were screened for suitability and applicability before performing the following analyses. The number of missing values per

variable was well below 5% (Tabachnick & Fidell, 2013), and therefore the series mean was used to replace the missing values. Multivariate normality is the most important assumption of SEM, and Mardia's standardized coefficient was used to test whether the data in the present study met the assumption of multivariate normality. According to Bentler (2010), if Mardia's standardized coefficient is greater than 5, the data are multivariate non-normally distributed, and a robust maximum-likelihood method should be used. In this study, Mardia's standardized coefficient was calculated using AMOS 20.0, and the results showed a Mardia's standardized coefficient of 64.328, indicating that the data were multivariate non-normal (Bentler, 2010). Therefore, an MLM estimation was used to estimate CFA and SEM (Muthén & Muthén, 2017). The S-B χ^2 statistic is available in Mplus when the MLM estimator is specified. As such, it is described as being capable of estimating maximum likelihood parameter estimates with standard errors and a mean-adjusted χ^2 test statistic that are robust to non-normality (Byrne, 2012; Muthén & Muthén, 2017; Wang & Wang, 2012).

5.2. Descriptive statistics

The descriptive statistics for the survey items were calculated as presented in Appendix A. The means ranged from the lowest, of 2.258 (SD = 1.097) for "To pursue new stimulus and excitement, I can go against rules and regulations" to the highest, of 4.323 (SD = 0.768) for "vegetation".

5.3. Measurement model for tourscapes

Previous literature (Rosenbaum & Massiah, 2011) clearly suggests that a tourscape is composed of four sub-dimensions: physical, social, socially symbolic, and natural. Thus, a CFA with MLM estimation using Mplus 7.0 was performed to assess the overall fit of the model and the construct validity. In the measurement model, "physical tourscape" was defined as a second-order construct composed of three sub-dimensions (i.e., ambience; space; and signs, symbols, and artifacts). The CFA provided a satisfactory fit, with $\chi^2 = 639.773$, $df = 341$, a comparative fit index (CFI) = 0.915, a Tucker-Lewis Index (TLI) = 0.905, a root mean square error of approximation (RMSEA) = 0.046, and a standardized root mean square residual (SRMR) = 0.047.

For construct validity, Hair, Black, Babin, and Anderson (2013, p.618) suggested that "at a minimum, all factor loadings should be statistically significant. Because a significant loading could still be fairly weak in strength, a good rule of thumb is that standardized loading estimates should be 0.5 or higher, and ideally 0.7 or higher." Moreover, average variance extracted (AVE) measures should equal or exceed 0.5, and construct reliability (CR) should be greater than 0.7, except when conducting exploratory research (Hair, Black, Babin, & Anderson, 2010). Additionally, many researchers in the tourism area (e.g., Kim, Ritchie, & McCormick, 2012; Zhou, Zhang, Zhang, & Ma, 2015) have argued that a standardized factor loading of 0.4 can be considered as an appropriate boundary for an item. In the present study, tourscape was a new construct and its measures were newly developed. To some extent, the research is exploratory in nature (Hair et al., 2010). Considering the suggestions of those researchers as well as the exploratory nature of this study, a factor loading of 0.5 and above was considered as appropriate.

The CFA results showed that the item (SY4, concentric lock) of a socially symbolic tourscape was lower than 0.5 (0.493), so this item was removed and a new CFA was conducted. Deleting this item is appropriate in that concentric lock is not as popular as in other socially symbolic tourscapes such as doodle drawings in Lijiang. The new CFA again provided a satisfactory fit, with $\chi^2 = 597.893$, $df = 315$, CFI = 0.917, TLI = 0.908, RMSEA = 0.046, and SRMR = 0.047. As shown in Table 2, all factor loadings were above 0.5 (Hair et al., 2013), with most of the loadings above 0.7, and t-values for all the standardized factor loadings of the items were found to be significant ($p < 0.01$). For each construct, the CRs were above 0.7, and all AVEs were above 0.5. Overall, the convergent validity of the constructs was supported (Fornell & Larcker, 1981; Chiou & Lin, 2009). Discriminant validity (see Table 3) was also supported, as the square root of AVE for each construct is greater than its correlation with other constructs (Fornell & Larcker, 1981).

Table 2
CFA results of tourscape.

Variables/items	Loading	CR	AVE
Physical tourscape		0.884	0.718
Ambient	0.862		
Space	0.876		
Sign	0.802		
Social tourscape		**0.835**	**0.507**
SO1. Casual behavior	0.529		
SO2. Trust each other	0.802		
SO3. Equal contacts	0.774		
SO4. Casual communication	0.730		
SO5. Communicate without worries	0.693		
Socially symbolic tourscape		**0.768**	**0.531**
SY1. Legends of love in ancient times	0.719		
SY2. Modern love story	0.853		
SY3. Doodle love	0.589		
Natural tourscape		**0.805**	**0.580**
NA1. Being away	0.690		
NA2. Fascination	0.830		
NA3. Compatibility	0.758		

Table 3
Discriminant validity test of tourscape.

	1	2	3	4
1.Physical tourscape	**0.847**			
2.Social tourscape	0.593	**0.712**		
3.Socially symbolic tourscape	0.535	0.441	**0.729**	
4.Natural touscape	0.706	0.591	0.538	**0.762**

Note: The bold diagonal elements are square roots of AVE for each construct. Below diagonal elements are the correlations between constructs.

5.4. Dimensionality of liminal experience

The completed sample (n = 422) was randomly split into two equal subsamples using SPSS random case selection: one calibration sample for EFA and one validation sample for CFA (Hair et al., 2010). A principal component factor analysis with a Varimax rotation was employed on the calibration sample in order to explore the dimensionality of liminal experience. Bartlett's Test of Sphericity provided a significant $\chi 2$ value of 1911.998 ($p < 0.000$, $df = 153$), and the KMO was 0.874, indicating the suitability of the dataset for EFA. Using eigenvalues-greater-than-one as guideline for factor extraction, four underlying dimensions of liminal experience were identified, with all items having salient loadings on one of the dimensions (0.491–0.856) and no items having salient cross-loadings. These four factors explained 64.911% of the variance in liminal experience, and the results are presented in Table 4. Factors were labeled based on highly loaded items and the common characteristics of the items they included. Factor 1 contained 7 items involving romantic, unique, and unconstrained experience, and hence was named "romance and relaxation". Factor 2 focused on 5 items measuring meeting others without previous arrangement and was termed "chance encounter". Factor 3 involved 3 items measuring feelings of sadness and anxiety, and hence was named "sense of loss". Factor 4 contained 3 items concerning feelings of indulgence, and hence was named "aberration".

Afterwards, a CFA was conducted to assess the construct validity of the liminal experience by utilizing the validation sample (n = 211), and the findings indicated an acceptable model fit, with $\chi^2 = 321.510$, $df = 129$, CFI = 0.902, TLI = 0.884, RMSEA = 0.085, SRMR = 0.070.

Table 4
EFA and CFA results of liminal experience.

Variable/item	EFA (n = 211)			CFA (n = 211)		
	Loading	eigenvalue	variance explained	Loading	CR	AVE
Romance and relax		**7.062**	**39.233**		**0.901**	**0.568**
LE1. Wonderful	0.811			0.800		
LE14. Freedom	0.748			0.821		
LE11. Relaxed	0.727			0.794		
LE2. Romantic	0.726			0.759		
LE15. Unconstraint	0.667			0.717		
LE5. Unique	0.656			0.749		
LE4. Legendary	0.608			0.616		
Chance encounter		**1.748**	**9.711**		**0.887**	**0.615**
LE10. A chance acquaintance	0.856			0.753		
LE9. Meet different people	0.839			0.615		
LE8. Encounter	0.625			0.893		
LE6. Meet by chance	0.572			0.813		
LE7. Mistery	0.550			0.819		
Sense of loss		**1.628**	**9.045**		**0.885**	**0.719**
LE16. Sense of loss	0.851			0.842		
LE17. Anxiety	0.829			0.854		
LE18. A hint of sadness	0.752			0.848		
Aberration		**1.256**	**6.922**		**0.772**	**0.531**
LE3. Dubious relationship	0.824			0.750		
LE13. Exceeding the bounds	0.670			0.694		
LE12. Self-indulgence	0.491			0.740		

Table 5
Discriminant validity test of sub-dimensions of liminal experience (AVE test).

	1	2	3	4
1.Romance and relax	**0.754**			
2.Chance encounter	0.709	**0.784**		
3.Sense of loss	0.490	0.534	**0.848**	
4.Aberration	0.624	0.765	0.582	**0.729**

Note: The bold diagonal elements are square roots of AVE for each construct. Below diagonal elements are the correlations between constructs.

The results of the CFA are presented in the right-hand column in Table 4. All factor loadings of the items were considerably greater than 0.5 (Hair et al., 2013), and most loadings were greater than 0.7. All of the CRs for the four sub-dimensions were above 0.7, and the AVEs were above 0.5, suggesting an acceptable convergent validity (Fornell & Larcker, 1981). As shown in Table 5, except for chance encounter and aberration, all square roots of AVE on the diagonal are greater than the off-diagonal elements in the corresponding rows and columns. Considering that chance encounter and aberration measure basically different aspects of liminal experience and that the difference between the square root of AVE and the correlation between them was small, it can be considered that they were distinct from each other.

We also adopted a second approach, i.e., a confidence interval test, to further test the discriminant validity between different dimensions of liminal experience (Anderson & Gerbing, 1988; Lin & Kuo, 2016; Chiou & Lin, 2009). Confidence interval testing involves calculating the 95% confidence interval around the correlation between the constructs and determining whether this interval includes 1.0. If it does not include 1.0, discriminant validity is demonstrated. The confidence interval test (see Table 6) showed that all the 95% confidence intervals did not include 1.0, again supporting the discriminant validity of the measures.

Table 6
Discriminant validity test of sub-dimensions of liminal experience (confidence interval test).

Pair of dimensions		95% confidence interval of correlates	
		Lower bound	Upper bound
Chance encounter	Romance and relax	0.625	0.793
Sense of loss	Romance and relax	0.368	0.612
Sense of loss	Chance encounter	0.418	0.650
Aberration	Romance and relax	0.502	0.746
Aberration	Chance encounter	0.675	0.855
Aberration	Sense of loss	0.459	0.705

5.5. Overall measurement model

Before testing the hypotheses, a CFA with MLM estimates using Mplus 7.0 was used to examine the construct validity of the overall measurement model (Anderson & Gerbing, 1988). In this model, "physical tourscape", "sensation-seeking", and "liminal experience" were conceptualized as second-order constructs. The proposed CFA achieved a good fit, with $\chi 2 = 3267.036$, $df = 1790$, CFI = 0.863, TLI = 0.855, RMSEA = 0.044, and SRMR = 0.063. All second-factor loadings were greater than 0.5 (Hair et al., 2010), except for boredom susceptibility of sensation-seeking (0.476). Boredom susceptibility describes a distaste for repetitive, monotonous, and invariant situations (Zuckerman, 1994). Although the unusual environment in a tourism destination can reduce boredom susceptibility, it may not suit the Yanyu experience compared with the other three dimensions of sensation-seeking. Besides, previous study has found that boredom susceptibility has a smaller reliability value than the other three sub-dimensions of sensation-seeking. Therefore, the two boredom susceptibility items were deleted. After that, a new CFA was performed. The new overall measurement model fits the data well, with $\chi 2 = 3021.527$, $df = 1614$, CFI = 0.864, TLI = 0.856, RMSEA = 0.045, and SRMR = 0.064.

As shown in Table 7, all the factor loadings were greater than the minimum threshold of 0.5 (Hair et al., 2010), and most were above 0.7. The CRs for the constructs exceeded the recommended threshold of 0.7 (Fornell & Larcker, 1981), and all AVEs were considerably above 0.5 (Tabachnick & Fidell, 2013). These results suggest that convergent validity for the measurement model was established. Regarding the measurement reliability, the Cronbach's α values for all constructs were above 0.7, indicating sufficient internal consistency (Chiou & Lin, 2009).

As shown in Table 8, except for liminal experience and nature tourscape, all square roots of AVE on the diagonal are greater than the off-diagonal elements in the corresponding rows and columns. Again, confidence interval testing was employed to further check the discriminant validity between different constructs (Anderson & Gerbing, 1988; Lin & Kuo, 2016; Chiou & Lin, 2009). The results (see Table 9) showed that all the 95% confidence intervals did not include 1.0, supporting the distinctiveness of the constructs. Overall, all the evidence supports the discriminant validity of the measures in the overall model.

5.6. Structural model

Proposed hypotheses were tested using a structural equation modeling approach with MLM estimation using Mplus 7.0. The structural model had a good fit ($\chi^2 = 3047.745$, df = 1616, CFI = 0.862, TLI = 0.854, RMSEA = 0.046, and SRMR = 0.068). The results (see

Table 7
The overall measurement model.

Variables/items	Loading	α	CR	AVE
Physical tourscape		0.871	0.883	0.717
Ambient	0.850			
Space	0.893			
Signs, symbols, and artifacts	0.794			
Social tourscape		**0.830**	**0.835**	**0.507**
SO1. Casual behavior	0.530			
SO2. Trust each other	0.803			
SO3. Equal contacts	0.771			
SO4. Casual communication	0.729			
SO5. Communicate without worries	0.696			
Socially symbolic tourscape		**0.760**	**0.768**	**0.531**
SY1. Legends of love in ancient times	0.715			
SY2. Modern love story	0.855			
SY3. Doodle love	0.591			
Natural tourscape		**0.793**	**0.804**	**0.578**
NA1. Being away	0.698			
NA2. Fascination	0.795			
NA3. Compatibility	0.785			
Emotional arousal		**0.850**	**0.852**	**0.536**
EM1. Romantic	0.698			
EM2. Love	0.808			
EM3. Lustful	0.717			
EM4. Excitement	0.705			
EM5. Desired	0.727			
Sensation seeking		**0.801**	**0.786**	**0.551**
Experience seeking	0.750			
Thrill and adventure seeking	0.775			
Disinhibition	0.700			
Destination familiarity		**0.765**	**0.780**	**0.547**
FM1. Know a lot about Lijiang	0.771			
FM2. Know more than ordinary people about Lijiang	0.838			
FM3. Know more than my friends about Lijiang	0.587			
Liminal experience		**0.919**	**0.860**	**0.608**
Romance and relax	0.844			
Chance encounter	0.808			
Sense of loss	0.655			
Aberration	0.799			

Table 10) provide support for 8 of the 10 hypothesized direct relationships. Specifically, Physical tourscape ($\gamma = 0.167$, $p < 0.05$), social tourscape ($\gamma = 0.140$, $p < 0.01$), socially symbolic tourscape ($\gamma = 0.117$, $p < 0.05$), and natural tourscape (0.281, $p < 0.001$) had a significant positive effect on liminal experience, supporting H1b, H2b, H3b and H4b. Socially symbolic tourscape ($\gamma = 0.261$, $p < 0.001$) and natural tourscape ($\gamma = 0.518$, $p < 0.001$) positively influenced emotional arousal, supporting H3a and H4a. Emotional arousal ($\beta = 0.340$, $p < 0.001$) and sensation-seeking ($\gamma = 0.130$, $p < 0.05$) had positive effects on liminal experience, supporting H5 and H7. Also, the control variable (i.e., destination familiarity) had a significant positive impact on liminal experience ($\gamma = 0.111$, $p < 0.05$). The R^2 values of emotional arousal and liminal experience were found to be 31.5% and 84.4% respectively. A visual diagram depicting the structural model is shown in Fig. 2, displaying 8 key constructs in this study, with three being conceptualized as second-order latent constructs.

Contrary to our expectation, the physical tourscape significantly

Table 9
Discriminant validity test of all constructs (confidence interval test).

Pair of variable		95% confidence interval of correlates	
		Lower bound	Upper bound
Social	Physical	0.520	0.666
Socially symbolic	Physical	0.453	0.613
Socially symbolic	Social	0.353	0.529
Nature	Physical	0.637	0.771
Nature	Social	0.519	0.671
Nature	Socially symbolic	0.461	0.613
Emotional arousal	Physical	0.193	0.373
Emotional arousal	Social	0.223	0.415
Emotional arousal	Socially symbolic	0.324	0.492
Emotional arousal	Nature	0.397	0.545
Sensation seeking	Physical	0.221	0.425
Sensation seeking	Social	0.272	0.468
Sensation seeking	Socially symbolci	0.305	0.481
Sensation seeking	Nature	0.361	0.541
Sensation seeking	Emotional arousal	0.432	0.608
Destination familiarity	Physical	0.096	0.320
Destination familiarity	Social	0.102	0.314
Destination familiarity	Socially symbolic	0.097	0.281
Destination familiarity	Nature	0.168	0.352
Destination familiarity	Emotional arousal	0.153	0.349
Destination familiarity	Sensation seeking	0.214	0.418
Liminal experience	Physical	0.594	0.736
Liminal experience	Social	0.557	0.709
Liminal experience	Socially symbolic	0.558	0.692
Liminal experience	Nature	0.632	0.766
Liminal experience	Emotional arousal	0.731	0.841
Liminal experience	Sensation seeking	0.532	0.700
Liminal experience	Destination familiarity	0.295	0.487

Table 10
Estimated standardized coefficients.

Hypothesis	path	Estimate	t-value
H1a	Physical tourscape→emotional arousal	−0.273	−3.500***
H1b	Physical tourscape→liminal experience	0.167	2.505*
H2a	Social tourscape→emotional arousal	0.062	1.025
H2b	Social tourscape→liminal experience	0.140	3.199**
H3a	Socially symbolic tourscape→emotional arousal	0.261	4.468***
H3b	Socially symbolic tourscape→liminal experience	0.117	2.344*
H4a	Natural tourscape→emotional arousal	0.518	7.212***
H4b	Natural tourscape→liminal experience	0.281	3.694***
H5	Emotional arousal→liminal experience	0.340	7.936**
H7	Sensation seeking→liminal experience	0.130	2.684**
–	Destination familiarity→liminal experience	0.111	3.227**

Note: *p < 0.05, **p < 0.01, ***p < 0.001.

Table 8
Discriminant validity test of all constructs (AVE test).

	1	2	3	4	5	6	7	8
1.Physical tourscape	0.847							
2.Social tourscape	0.593	0.712						
3.Socially symbolic tourscape	0.533	0.441	0.729					
4.Nature tourscape	0.704	0.595	0.537	0.760				
5.Emotional arousal	0.283	0.319	0.408	0.471	0.732			
6.Sensation seeking	0.323	0.370	0.393	0.451	0.520	0.742		
7.Destination familiarity	0.208	0.208	0.189	0.260	0.251	0.316	0.740	
8.Liminal experience	0.665	0.633	0.625	0.786	0.699	0.616	0.391	0.780

Note: The bold diagonal elements are square roots of AVE for each construct. Below diagonal elements are the correlations between constructs.

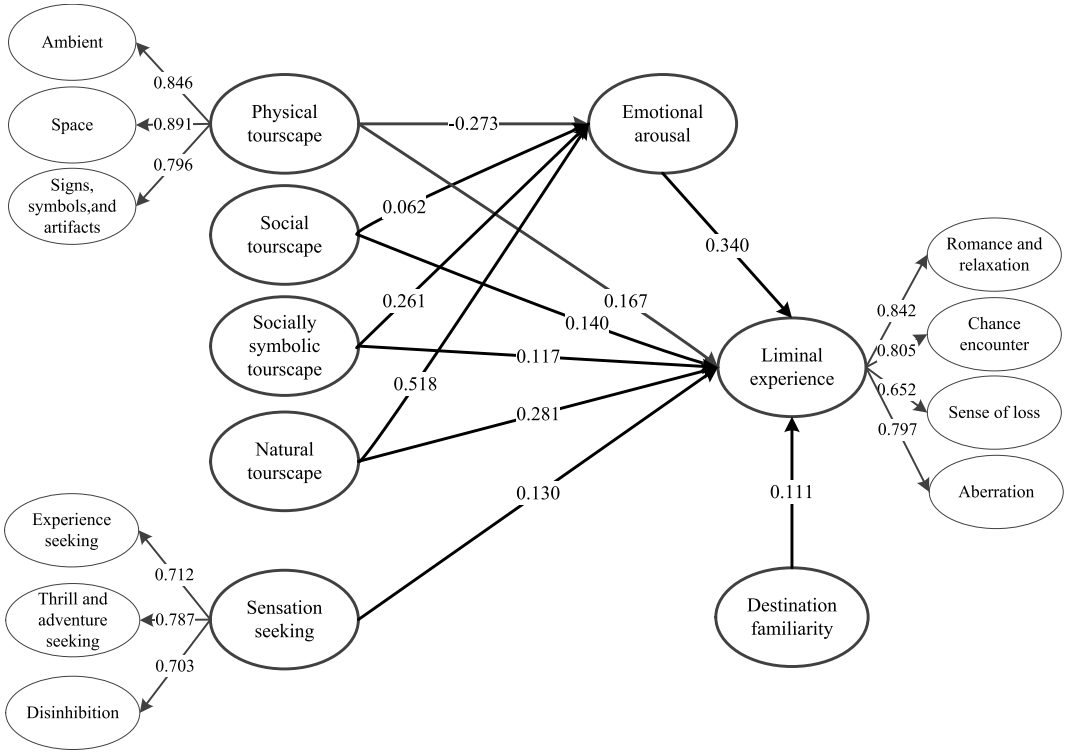

Fig. 2. Structural model.

affects emotional arousal, but negatively (−0.273, $p < 0.01$), thus refuting H1a. This result indicates that as tourists rated the physical environmental cues more favorably, emotional arousal actually decreased. This finding is in accordance with the results of previous studies which found that the informational dimension of a festivalscape negatively influences attendees' emotions (Lee et al., 2008). This result may be explained by the selective nature of attention. Attention is the allocation of processing capacity to some stimulus (Kotler & Keller, 2012). If tourists are absorbed in the physical surroundings, i.e., ambience (e.g., lights at night), space (e.g., stone bridges and paths), and signs, symbols, and artifacts (e.g., street decorations) in the tourism destination, they may "forget" to think about romantic relationships with others, and hence the effect of physical tourscape on emotional arousal was found to be negative.

Social tourscapes did not significantly influence emotional arousal ($\gamma = 0.062$, $p > 0.1$), thus refuting H2a. This result indicates that social elements of environmental stimuli are not the determining drivers of tourists' emotional arousal. This result may be explained by considering the elements in a social tourscape. "Social tourscape" in the present study was measured from the perspective of interactive styles between tourists and the presented behaviors of other tourists (Baker et al., 1994; Rosenbaum & Massiah, 2011). While these elements have direct influences on liminal experience, their predictability on emotional arousal might be limited, and it is supposed that the messages that tourists communicate between each other might have the potential to activate their emotions about Yanyu.

5.7. Mediating effects

There are several methods for testing hypotheses about mediating effects, including the Sobel test, the distribution of product method, and bootstrapping (Hayes, 2012). The latter two are recommended, as they are more powerful than the Sobel test (Preacher & Hayes, 2008). The bootstrapping method (bootstrap = 2000) was used to test the mediating effects of emotional arousal on the relationships between tourscape and liminal experience (see Table 11). The structural model had a good fit with $\chi^2 = 3468.460$, df = 1616, CFI = 0.846, TLI = 0.0.837, RMSEA = 0.052, SRMR = 0.068. As shown in Table 9, the 95% bootstrap confidence intervals of indirect effects from socially symbolic and natural tourscapes to liminal experience do not contain zero, and thus, H6c and H6d are supported. However, H6a and H6b are rejected due to the 95% bootstrap confidence intervals for these indirect effects including zero. To sum up, emotional arousal partially mediates the effects of socially symbolic and natural tourscapes on liminal experience.

Table 11
Mediating effect (bootstrap = 2000).

Hypothesis	Independent variable	Mediator	Dependent variable	95% confidence interval	
				Lower bound	Upper bound
H6a	Physical tourcape	Emotional arousal	Liminal experience	−0.210	0.024
H6b	Social tourscape			−0.042	0.084
H6c	Socially symbolic tourscape			0.018	0.160
H6d	Natural tourscape			0.049	0.303

6. Conclusions, contributions and implications

6.1. Conclusions

This study takes two theoretical approaches to empirically investigate the factors influencing tourists' liminal experience at a Yanyu destination–Lijiang. The SOR theory is applied to examine the influences of a tourscape on tourists' emotional arousal and liminal experience, and then sensation seeking theory is used to investigate the effects of sensation-seeking on liminal experience. The former posits that

tourists are touched by what they see and perceive, that is, that liminal experience is determined by the external factors (outside of the individual) at a destination; and the latter asserts that liminal experience is driven by individuals' motivation. The findings of this study are generally consistent with the suggestions of the servicescape framework (Baker et al., 1994; Bitner, 1992) and sensation-seeking theory (Pizam et al., 2004).

Yanyu is an intimate relationship between strangers who develop a feeling of romance (Xu & Ye, 2016). Although Yanyu is also very much criticized and not morally accepted, the study of Yanyu can bring some insights into tourists' experiences and the social issues in China regarding intimate relationships. This study shows that the Yanyu experience is composed of four sub-dimensions: romance and relaxation, chance encounters, sense of loss, and aberration. The Yanyu experience shows that tourists sometimes visit Lijiang to pursue emotional experiences to compensate for what they may lack in their daily emotional relationships.

This study finds that social tourscapes positively influence liminal experience, as social tourscapes provide tourists more opportunities to interact with each other and can foster a Yanyu experience. In a destination, tourists interact with other tourists and local residents in a relatively relaxed way free of normal norms and they can accept more "abnormal" temporal relationship, especially developed on emotions rather than rationality. Although Yanyu is a sensitive word in Chinese society and people are reluctant to talk about it frankly, it becomes acceptable in an anonymous social environment (i.e., a destination).

The results suggest that the socially symbolic dimension of a tourscape positively affects emotional arousal and liminal experience. These socially symbolic elements, such as love stories and doodles in Lijiang, are consistently perceived by Yanyu tourists as symbols of Yanyu and are powerful elicitors of emotional feelings and experiences. This finding is in line with Rosenbaum and Massiah's (2011) proposition that socially symbolic symbols encourage certaain behaviors among groups of customers with unique ethnic, sub-cultural, or marginalized societal statuses by evoking their emotions. This study also finds that natural or restorative tourscapes positively affect tourists' emotional arousal and liminal experience, and that tourism destinations have the potential to activate emotions and social interactions among tourists.

The results suggest that emotional arousal has a positive effect on liminal experience. Tourists whose emotions are stimulated will have more liminal experience, implying that emotion is a pervasive tool that serves to shape tourists' liminal experience. This result is entirely consistent with previous findings that emotions usually lead to some kind of action by the individual when they are activated (Ladhari et al., 2017).

The findings also suggest that emotional arousal mediates the effects of socially symbolic and natural tourscapes on liminal experience. These two environmental stimuli affect tourists' liminal experience through their emotional responses. These findings are in line with the SOR model, which suggests the environment creates an emotional response in individuals, which in turn elicits approach/avoidance behavior (Mehrabian & Russell, 1974).

The study finds that sensation-seeking tourists tend to obtain more liminal experience. Those who have a strong need for varied, novel, complex, and intense sensations tend to take risk to seek a Yanyu experience in a tourism destination. This result is consistent with previous research that sensation-seeking is positively correlated with various tourists' attitudes and behaviors (Galloway et al., 2008), and further confirm the predictability of this theory on individuals' behavior.

6.2. Theoretical contributions

This study provides several theoretical contributions in several areas, including liminal experience, environmental psychology, and sensation-seeking. This study contributes to the understanding of liminal experience in a tourism context by exploring and validating its structure as well as by examining its antecedents. Although tourism is typically considered as a liminal experience by most researchers (e.g., Weichselbaumer, 2012), empirical research on this topic is scarce. This study validates that tourists can enter into a liminal world where they feel free from their daily obligations and norms. Temporal romantic feelings without a marital obligation and without exchange of money in a destination can serve as compensation for their feeling restricted in the practical-orientated relationships back home. The empirical findings of this study reveal that Yanyu as a liminal experience has four subdimensions: romance and relaxation, chance encounters, sense of loss, and aberration. Furthermore, liminal experience is driven by environmental elements in a destination directly and indirectly, as well as by the sensation seeking motivation of tourists.

This study adds to the current literature on destination environmental stimuli by introducing the concept of a tourscape and empirically testing its influence on tourists' emotions and liminal experience. Although substantial studies have been conducted on the topic of environmental stimuli in destinations, they have solely focused on physical environments (e.g., Mossberg, 2007) or social environments (such as tourist-tourist interactions) (e.g., Huang & Hsu, 2010). The tourscapes studied in this research are a complex mix of environmental features that not only include physical stimuli, but also social and psychological elements which have different effects on tourists' liminal experiences through different mechanisms.

This study extends the research on interior environmental elements in an enclosed space such as stores or restaurants to open exterior spaces in a tourism destination, hence enriching the existing knowledge and theories on servicescapes. While the influence of an in-store environment on consumers' emotions and shopping experiences is empirically supported, the importance of exterior environmental cues has been largely neglected. This study bridges this research gap by extending the research on store servicescapes into a spacious destination context, hence expanding the explanatory power and application scope of servicescapes.

By investigating the effects of tourscapes on tourists' emotional and liminal experience, this study further validates the SOR theory, which is regarded as the foundation for behavior in a destination context. The findings of this study indicate that both tangible and intangible environmental cues embedded in a tourism destination serve as external stimuli (S) that produce certain experiences (R) via an individual's inner evaluation (O).

This study also contributes to the existing theory of sensation-seeking by empirically examining its predictability on liminal experience. Sensation-seeking was found to positively correlate with several attitudes and behaviors concerning tourism, such as travel styles, destination choices (Lepp & Gibson, 2008), and volunteer tourism (Wymer, Self, & Findley, 2010); however this study is the first to test the influence of sensation-seeking on liminal experience, which is quite different from other tourism-related behavior. Hence this study adds new empirical findings for sensation-seeking theories.

Finally, this study makes contributions to the theories on sex/romance tourism. A substantial amount of research on sex/romance tourism has been carried out; however, few empirical studies have been done on this issue. Although Yanyu tourism is different from sex/romance tourism, they are both typically considered as liminal in nature. The findings of this study have some implications for sex/romance tourism; it is predicted that tourscapes and sensation-seeking may also have influences on sex/romance tourists' experiences.

6.3. Managerial implications

Tourism destinations serve as liminal places where tourists can be temporarily free of their secular obligations, therefore cultivating a fertile ground for Yanyu to grow. In this sense, Yanyu has become a new tourism brand for many destinations in China. For instance, Tongli

Ancient Town in Jiangsu Province portrays itself as a Yanyu destination in an official micro-film titled “I Belong to Tongli”. Fenghuang Ancient Town in Hunan Province held a “Love Encountering Festival” in 2014 to attract tourists, with the slogan “To encounter a person and fall in love with a city”. Destination marketers of these Yanyu destinations can benefit from the results of this study.

The results of this study can help destination marketers to better understand how to manage Yanyu tourism destinations. Tourscapes have four sub-dimensions: physical, social, socially symbolic, and natural. Among these, social, socially symbolic and natural tourscapes were found to positively influence liminal experience. Correspondingly, destination marketers can shape these environmental stimuli to stimulate a preferable Yanyu experience. First, Yanyu is an intimate relationship developed between two parties, and in order for this relationship to grow, interactions between them are inevitable. Because Yanyu is incompatible with Chinese daily norms, destination marketers should construct a comfortable and relaxed atmosphere in order to encourage tourists to interact with each other freely and without anxiety. Second, a socially symbolic tourscape involves signs, symbols, and artifacts that have special meanings for Yanyu tourists, and destination marketers are encouraged to employ Yanyu-related stimuli such as love stories and doodle love to attract these tourists. Third, in order to shape a Yanyu experience, destination marketers should construct a natural tourscape that helps tourists to temporarily abandon their daily norms of life and concentrate on things they are interested in.

An important result of this study is that emotional arousal mediates the relationships between tourscapes and liminal experiences. Thus, destination marketers could improve the probability of Yanyu experiences by changing a destination's environment, which could elicit positive emotions. In order to shape a tourist's liminal experience, destination marketers should monitor their emotions derived from their subjective perceptions of exogenous characteristics, like physical conditions, socially symbolic elements, and natural dimensions. Understanding tourscape attributes that contribute to emotional arousal allows destination marketers to make improvements in areas that lead to favorable emotions. From this point of view, destination marketers are advised to shape tourists' positive emotions, as positive emotions are factors influencing tourists' liminal experiences.

This research finds that high-sensation-seekers report more liminal experiences. This result suggests that sensation-seeking can be a useful marketing segmentation base for Yanyu destinations. If destination marketers want to establish a Yanyu destination image and use this image to attract tourists, it is strongly advised that they promote this image to tourists who have high-sensation-seeking personalities. For example, destination marketers can use slogans like “a place without scruples” to attract high-sensation-seeking tourists. On the other hand, destination marketers could use slogans like “a place like an old friend” to attract low-sensation-seeking tourists, since familiarity would attract travelers low in sensation-seeking motivation (Lepp & Gibson, 2008).

6.4. Future studies

The model should be further investigated and implemented with other more generic perspectives. First, in order to generalize the findings to a wider population, it would be worthwhile to expand this research to other Yanyu destinations such as Yangshuo and Fenghuang. Second, this study uses a quantitative method to empirically test the hypothesis model based on cross-sectional data, and future research could use qualitative methods to explore how the image of Yanyu has developed in the Chinese domestic market. Further, as liminal experience is a unique and complex phenomenon, future studies are needed to investigate other antecedents of liminal experience, such as tourist motivation, as well as consequences of liminal experience such as destination loyalty.

7. Author contributions

Manuscript title: A structural model of liminal experience in tourism.

Study conception and design: Hui Zhang, Honggang Xu.

Acquisition of data: Honggang Xu.

Analysis and interpretation of data: Hui Zhang.

Drafting of manuscript: Hui Zhang.

Critical revision: Honggang Xu.

Acknowledgements

The research is funded by the National Natural Science Foundation of China (No. 41771145, No. 71602194) and Zhuhai Scholar Fund?.

Appendix A. Descriptive statistics

Variables/items	Mean	St.d	Skewness	Kurtosis
Physical dimension				
Ambient				
AM1. Lights at night	4.022	0.808	−0.583	0.356
AM2. Color	4.178	0.811	−0.715	0.002
AM3. Odor	3.841	0.842	−0.269	−0.350
AM4. Music	4.059	0.879	−0.706	0.105
Space				
SP1. Ancient town	3.998	0.900	−0.879	0.822
SP2. Stone bridge and path	4.124	0.860	−1.051	1.289
SP3. Water	4.062	0.910	−0.769	0.081
SP4. Snow mountain	4.106	0.812	−0.358	−0.971
SP5. Open space	3.967	0.835	−0.429	−0.216
SP6. Vegetation	4.323	0.768	−1.101	1.181
Signs, symbols, and artifacts				
SI1. Signage and flags	3.786	0.793	−0.343	0.225
SI2. Decoration in store	3.950	0.764	−0.267	−0.443
SI3. Pilot identifier	3.734	0.907	−0.409	−0.303
SI4. Decorations of the street	3.945	0.788	−0.399	−0.102
SI5. Architectural style	4.281	0.708	−0.667	−0.017
SI6. Artifacts	3.869	0.906	−0.470	−0.104

Social				
SO1. Casual behavior	3.538	0.887	−0.146	−0.139
SO2. Trust each other	3.243	0.949	−0.219	0.246
SO3. Equal contacts	3.637	0.885	−0.360	0.102
SO4. Casual communication	3.405	0.957	−0.299	−0.047
SO5. Communicate without worries	2.986	1.036	−0.062	−0.299
Socially-symbolic				
SY1. Legends of love in ancient times	3.582	0.839	−0.224	−0.156
SY2. Modern love story	3.514	0.818	0.033	0.007
SY3. Doodle love	3.536	0.872	−0.197	−0.137
SY4. Concentric lock [a]	3.657	0.920	−0.442	0.037
Natural				
NA1. Being away	3.471	1.101	−0.276	−0.681
NA2. Fascination	4.074	0.854	−0.740	0.336
NA3. Compatibility	3.627	0.918	−0.119	−0.481
Emotional arousal				
EM1. Romantic	3.274	0.996	−0.108	−0.328
EM2. Love	2.969	1.014	0.145	−0.214
EM3. Lustful	3.129	1.030	0.041	−0.398
EM4. Excitement	3.178	1.065	−0.005	−0.608
EM5. Desired	3.438	1.074	−0.365	−0.483
Liminal experience				
LE1. Wonderful	4.012	0.802	−0.937	1.751
LE2. Romantic	3.761	0.873	−0.269	−0.110
LE3. Dubious relationship	2.577	0.985	0.450	0.048
LE4. Legendary	3.445	1.013	−0.346	−0.296
LE5. Unique	3.827	0.925	−0.699	0.305
LE6. Meet by chance	3.385	1.022	−0.142	−0.538
LE7. Mistery	3.435	0.991	−0.105	−0.475
LE8. Encounter	3.361	1.007	−0.155	−0.501
LE9. Meet different people	3.717	0.959	−0.525	−0.084
LE10. A chance acquaintance	3.606	0.978	−0.276	−0.407
LE11. Relaxed	4.147	0.787	−0.853	1.060
LE12. Self-indulgence	3.526	1.058	−0.305	−0.538
LE13. Exceeding the bounds	2.691	1.120	0.399	−0.429
LE14. Freedom	3.991	0.850	−0.752	0.623
LE15. Unconstraint	3.843	0.932	−0.602	0.049
LE16. Sense of loss	3.152	1.039	0.011	−0.436
LE17. Anxiety	2.833	0.994	0.298	−0.016
LE18. A hint of sadness	3.220	1.048	−0.052	−0.559
Sensation seeking				
Experience seeking				
ES1. I am interested in almost everything that is new	3.746	0.927	−0.500	0.013
ES2. I always like to do things that no one else has done before	3.467	0.931	−0.187	−0.196
Boredom susceptibility				
BS1. I will feel very uncomfortable if I stay in the same place for too long	3.219	1.006	0.029	−0.648
BS2. I get restless if I do the same thing for a long time	3.335	0.984	−0.111	−0.384
Thrill and adventure seeking				
TAS1. I would love to socialize with adventurous people	3.361	0.974	−0.062	−0.444
TAS2. Taking adventures always makes me happy	3.359	0.985	−0.066	−0.512
Disinhibition				
DIS1. I would do anything as long as it is exciting and stimulating	2.760	1.053	0.420	−0.203
DIS2. To pursue new stimulus and excitement, I can go against rules and regulations	2.258	1.097	0.764	0.013
Destination familiarity				
FM1. Know a lot about Lijiang	2.976	0.818	0.201	0.450
FM2. Know more than ordinary people about Lijiang	2.924	0.885	0.149	−0.105
FM3. Know more than my friends about Lijiang	3.239	0.915	0.031	−0.370

Note: a indicates items dropped in data analysis.

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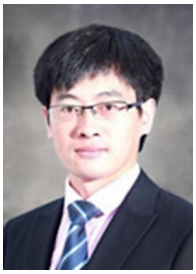

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