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Can red tourism construct red memories? Evidence from tourists at Mount Jinggang, China

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ABSTRACT

This study explores factors contributing to the construction of red memories in red tourism. Survey data from red tourists at Mount Jinggang, China, were analyzed to examine factors that can shape red memories (i.e. memory development, memory improvement, and memory correction). Results from structural equation modeling indicated that Mount Jinggang's red cultural atmosphere and tourists' experiences each significantly influenced red memory development and improvement. Results suggested that tourists' perceptions of the site's red cultural atmosphere had no significant impacts on red memory correction. Furthermore, a multi-group analysis of intergenerational differences in red memories clarified the social evolution of such memories. These findings contribute to the red tourism literature by providing empirical support for the formation and development of tourists' red memories. The results also enhance the understanding of red memories as a consequence of red tourism and offer managerial implications for red tourism marketing and planning.

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1. Introduction

According to the document National Red Tourism Development Planning 2004–2010 from the General Affairs Office of the Communist Party of China (CPC) and the General Office of the State Council of China, red tourism is a themed activity involving learning, sightseeing, and nostalgia at communist heritage sites. These sites are intended to commemorate communist revolutionary events, monuments, and the former residences of historical celebrities and patriots as well as other points of interest. The government's enthusiastic push has spurred the popularity of red tourism in China, so much so that this form of tourism now represents a prime tourism product in Chinese destinations. In 2018, red tourism drew a record 660 million domestic tourists and amassed RMB 425.7 billion in revenue. Economic, sociocultural, and political considerations have driven many destinations in China to prioritize red tourism in tourism planning and marketing. First, red tourism, as an effective poverty reduction strategy, has energized regional economic growth in many underdeveloped and peripheral areas with affluent red tourism resources. Second, red tourism represents a cultural movement to promote the 'red spirit', embodying cultural and propagandistic components of red tourism. Last but not least, red tourism has been assigned certain political functions, such as preserving and popularizing red history and culture. Red tourism essentially serves as a political means of strengthening the country's national identity (Wall & Zhao, 2017).

Red tourism in China has been heavily used for patriotic education, especially with the younger generation. As red tourism continues to grow nationwide, an increasing number of tourists are participating in various red tourism activities. Yet the simple passage of time has prevented many people in China from possessing red memories (Xu, 2016). These types of memories embody an active past that conveys and maintains national identity (Olick, 1999). Red memories also constitute the core of red tourism and can be preserved or inherited at relevant sites. In China, red tourism represents a pillar of red education and red memory among the country's citizens. This form of tourism has attracted considerable research interest since 2004. Even so, red tourism is often regarded as a product of 'mass tourism' with little concern for its educational and political functions (Zuo, Gursoy, & Wall, 2017). Limited research has empirically investigated the construction and

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dimensionality of red memories (Long & Pan, 2018; Pan, 2018; Xu, 2016). In-depth empirical research on the impact of red tourism at the individual level, especially with respect to red memories, is accordingly scarce. The research question guiding this study is therefore "Can red tourism enrich tourists' understanding of red history and awaken shared memories? If so, how?" This line of inquiry holds particular importance for red tourism research.

According to the stimulus-organism-response (S–O-R) model of behavioral psychology, tourists develop experiences through stimulation from tourism activities, which then generate behavioral responses through a series of psychological processes. Red tourism provides tourists with an intense political atmosphere; when visitors immerse themselves in this red context, they unconsciously access their political awareness (Xu, 2016). This process can be quite unique from encountering mass tourism products for entertainment purposes. This paper aims to explore the development of red memories by evaluating tourists' perceptions of the cultural atmosphere and experiences associated with red heritage to assess red tourism's effectiveness. To date, few studies have attempted to explore the dynamic process of red memory formation in cultivating youth's political identity (Pan, 2018).

This study seeks to make several contributions to the red tourism literature to fill the aforementioned research gap. The work focuses on uncovering factors that can contribute to tourists' red memories. First, a model was developed to delineate aspects shaping tourists' red memories in a certain red destination, including visitors' perceptions of the red cultural atmosphere and the red tourist experience. A clearer understanding of these characteristics can help to predict the emotional outcomes of red tourism. Second, three red memory constructs (i.e. memory development, memory improvement, and memory correction) were considered to unveil corresponding features from a dynamic perspective. Third, the age-related impacts were compared between two tourist groups; a multi-group analysis of intergenerational differences in red memories helped to describe the social evolution of such memories.

2. Literature review & research hypotheses

2.1. Literature review

2.1.1. Red tourism

The concept of 'red tourism' dates back to 1998, when Jiangxi Province promoted it as a bundle of tourism products related to the Chinese Revolution, and then the central government has implemented nationwide strategics to facilitate red tourism development across the country. As an emerging form of special interest tourism, red tourism has become a popular topic among tourism scholars in China and abroad (Xu, 2015; Zhao & Timothy, 2017). Red tourism has also been heavily leveraged as a tool for patriotic education; meanwhile, its economic benefits have garnered less interest. Most research on red tourism's political functions has been based on party identity and national identity (Zhao & Timothy, 2015). In essence, with a political objective as its foundation, red tourism can preserve, promote, and convey the country's communist history and cultivate people's support for the government (Wall & Zhao, 2017; Zuo, Huang, & Liu, 2016). However, most related studies have not provided empirical insight into red tourism's effectiveness in this vein. Scholars have also not yet fully disclosed the internal mechanism of red tourism's political function.

Red tourism in China is partly similar to the Western concept of communist heritage tourism (Zuo, 2014). Caraba (2011) highlighted two distinct features of European communist heritage tourism and red tourism in China. First, European communist heritage tourism is dominated by the free market and external demand, while the Chinese government drives red tourism. Second, the cultural connotations of European communist heritage tourism and red tourism vary. The former attempts to eschew its socialist past, ameliorate a modern image of Europeanness, and reconsolidate national status to transform its communist heritage into profitable tourism products (Coles, 2003). Conversely, the latter is considered a political initiative to deepen individuals' nostalgia for communist memories and reinforce the CPC's leadership (He, 2005). These distinguishing characteristics collectively lead to unique tourist experiences and memories during travel. Therefore, red tourism is a form of special interest tourism specific to China, which clearly separates it from European communist heritage tourism. Despite these variations, both red heritages and European communist heritages hold memories about a country's communist past. A few scholars have specifically investigated traumatic and nostalgic memories (Iacono & Këlliçi, 2015). Currently, however, detailed exploration into how tourism affects these memories remains lacking.

In summary, the government-established goals of red tourism are intended to promote patriotism . Although the small body of literature on this topic has considered the political and social functions of red tourism, it is necessary to unravel the dynamics of visitors' red memories as a consequence of red tourism. Further, neither red tourism nor European communist heritage tourism studies have empirically discussed memory construction. The following section provides an overview of red memory as a concept.

2.1.2. Red memory

Red memory, a unique form of social memory, refers to historical and emotional memories about the revolutionary history that led the CPC to achieve national independence, liberation, rejuvenation, and prosperity (Pan, 2018). The study of social memory began in the early 20th century. The Social Framework of Memory, written by Halbwachs in 1925, laid the foundation for social memory research and then birthed the concept of collective memory (Halbwachs & Coser, 1992). Olick (1999) proposed a framework of social memory covering a range of memories with social attributes. Research on the social attributes of memory has largely focused on collective and social forms of memory (Connerton, 1989). Psychologists have explored diverse determinants shaping social memory (Hirst, Yamashiro, & Coman, 2018), such as the environment (Fentress & Wickham, 1992) and conversational interactions in social networks (Geana, Duker, & Coman, 2019). Social memory is dynamic and socially constructed (Halbwachs & Coser, 1992), meaning that it varies over time as social perspectives change (Haj & Ralph, 2018). However, limited empirical studies have explored the development of red memory, which is expected to play a vital role in red tourism. Social memory is closely linked to major historical events as well as tangible (e.g. relics, monuments, and documents) or intangible carriers (e.g. music, photos, movies, and stories) (Xu, 2016). As an aspect of culture, red memory can be exchanged across generations through education and mass media to shape one's recall of the past. Amid growing demand for visiting memorial sites that invoke social memory, tourism has become a main channel through which social memory is strengthened (Lennon & Foley, 2000).

People's self-expression of information can cultivate red memory, but information sources on red memory are relatively sparse. Red memory depends on the preservation of red heritage sites; the government transmits red history messages to tourists through such sites to promote social cohesion. However, contemporary China's red memory suffers from fragmentation in the mass media. These platforms have contributed to the dissemination of inaccurate historical trends represented by historical nihilism (Long & Pan, 2018). Furthermore, red memory naturally fades over generations: as non-witnesses of red history, younger generations in China are unlikely to have profound first-hand experiences with it, leading to insufficient or even biased red memory (Pan, 2018). The formation and evolution of social memory constitute a dynamic process that is developed, corrected, reconstructed, or even disregarded by people over time (Olick & Robbins, 1998). Therefore, this study considered three constructs of red memory (i.e. memory development, memory improvement, and memory correction) to explore the dynamic effects of red tourism on this type of memory.

Although red tourism has been framed as a means of strengthening red culture and providing patriotic education, little research has

considered how red memories are developed through red tourism. A more holistic understanding of the formation and social outcomes of red tourism is therefore needed.

2.2. Hypothesis development

In environmental psychology, many scholars have set out to construct theoretical models of experiences based on factors associated with perceptions of individuals' atmosphere and environment (Heung & Gu, 2012). Although cultural atmosphere is an abstract concept, tourists can nevertheless perceive it. This type of atmosphere is pivotal to the tourist experience; perceptions of red cultural atmosphere reflect visitors' personal sense of the environment within red tourism sites. This atmosphere reflects a site's unique local cultural environment and demonstrates for visitors the cultural appeal of red tourism attractions. Cultural atmosphere manifests from presented objects as well as an area's historical background. In the current paper, this type of atmosphere refers to various tangible and intangible elements related to red culture. Past studies recognized the importance of static and dynamic cultural components that shape the atmosphere. Static and dynamic cultural manifestations can contextualize cultural identity and production (Gournelos, 2007). These features are also useful for examining intercultural communication, such as between hosts and guests in a red tourism setting (Jenks, Bhatia, & Lou, 2013). In one instance, Zhang, Xu, Lu, and Lei (2015) demonstrated that static and dynamic cultural capital represent two vital dimensions of the metropolitan tourist image. This study similarly considered two features of the cultural atmosphere: static and dynamic. A static red cultural atmosphere represents the cultural style displayed through overt tangible elements related to red culture (e.g. monuments, facilities, and relics) while a dynamic red cultural atmosphere involves the vibrant culture visitors perceive during interactive experiences (e.g. customized interpretations and multimedia demonstrations using acousto-optic technology). Visitors' experiences with red tourism are contingent on the static and dynamic atmosphere. This study addresses the effects of red tourism on red memories from two dimensions: tourists' perceptions of a site's static and dynamic red cultural atmosphere and the red tourist experience in general.

2.2.1. Perceptions of cultural atmosphere and the tourist experience

Maccannell (1973) suggested that authentic heritage objects and settings are conducive to genuine experiences. Relatedly, tour-based interpretations are essential to strengthening the authenticity of tourists' experiences (Wall & Zhao, 2017). Physical symbols such as museums, buildings, and natural landscapes enable tourists to enjoy spiritual and historical experiences featuring common myths and historical memories (Palmer, 1999). Several scholars have explored the cultural atmosphere in different tourism contexts. For example, according to Cui, Xu, and Yang (2014) and Zhang and Zhang (2017), the sacred religious-cultural atmosphere of Tibet in China offers tourists a unique and authentic experience. The territory's atmosphere is illustrated through Buddhists, folk tales, and rituals. At theme parks, visitors' experiences are influenced by a tour's microenvironment, such as the cultural atmosphere associated with a park's location (Wu, Li, & Li, 2014). Prior studies have suggested that cultural atmosphere is perceptive and must be expressed by certain carriers. Accordingly, from a tourist standpoint, perceptions of cultural atmosphere can be divided into two dimensions (i.e. static and dynamic) as indicated by the following hypotheses:

H1. Tourists' perceptions of a static red cultural atmosphere positively influence the red tourist experience.

H2. Tourists' perceptions of a dynamic red cultural atmosphere positively influence the red tourist experience.

2.2.2. Perceptions of cultural atmosphere and red memory

Landscape, such as battlefield landscapes (Justine, 2003) and postwar memorials (Seaton, 1999), has often been deemed a carrier of memories (Baker, 2003). Place and memory are inextricably intertwined (Cresswell, 2015): landscape elements such as monuments, museums, historical buildings, plaques, and inscriptions carry memories, and an entire neighborhood may even be named a 'historic area' to preserve historical memories associated with that place. Tourists' memories can also be molded by individuals' natural and humanistic environments (Morgan, Lugosi, & Ritchie, 2010). Li, Zhu, and Huang (2010) asserted that landscape, memory, and identity are closely linked; the interaction between landscape and memory shapes visitors' cultural perceptions of a place as well as their identification with that place. The cultural atmosphere, as a core component of tourist destinations, can crystallize tourists' memories (Xu & Zhu, 2016).

Dynamic cultural manifestation (e.g. ritual practices) also represents essential carriers of social memory. Individuals connect with a collective identity through ritual activities (Nora, 1989). These practices, such as live performances (Thrift & Dewsbury, 2000), parades (Marston, 1989), and ceremonies and war memorials (Nagel, 2002), play vital roles in shaping, developing, and evoking memory. Quinlan Cutler and Carmichaelr (2010) found that travelers expressed strong local emotions when participating in leisure activities in a tourist destination due to the surrounding social and cultural atmosphere, which can cement place-specific memories. Research on the composition and measurement of memory has underlined the recollection of memories as paramount. Such recollection comprises one's recall of spatiotemporal circumstances, the physical features of stimulus presentation, and cognitive operations and emotional states while processing stimuli (Meiser & Bröder, 2002). Considering the educational functions of red tourism, this study focuses on the relationship between visitors' perceptions of cultural atmosphere and red memories in terms of memory development, improvement, and correction. The following hypotheses are proposed to test corresponding associations:

H3. Tourists' perceptions of a static red cultural atmosphere positively influence red memory development.

H4. Tourists' perceptions of a static red cultural atmosphere positively influence red memory improvement.

H5. Tourists' perceptions of a static red cultural atmosphere positively influence red memory correction.

H6. Tourists' perceptions of a dynamic red cultural atmosphere positively influence red memory development.

H7. Tourists' perceptions of a dynamic red cultural atmosphere positively influence red memory improvement.

H8. Tourists' perceptions of a dynamic red cultural atmosphere positively influence red memory correction.

2.2.3. The tourist experience and red memory

Despite its popularity in tourism research, definitions of the 'tourist experience' vary across studies (Kim & Fesenmaier, 2017); however, most research has highlighted authenticity as the cornerstone of the tourist experience (Maccannell, 1973). With respect to red tourism, educational and informative experiences are just as important as authenticity. The red tourist experience can thus be defined as educational, authentic, entertaining, and informative tourist experiences formed through red tourism activities (Zuo, 2014). The dimensionality of the tourist experience has drawn close research attention. Pine and Gilmore (1999) outlined four experiential features in this vein: entertainment experiences, educational experiences, aesthetic experiences, and escapist experiences. Some scholars have nevertheless treated the tourist experience as a unidimensional construct (Wang, Xie, Huang, & Morrison, 2020; Zuo, 2014). When individuals become immersed in an activity, they are more likely to form memories of it (Stamboulis & Skayannis, 2003). Memory is also central to the tourist experience and is defined as filtering mechanisms that link experiences to an event's

emotional and perceptual outcomes (Oh, Fiore, & Jeoung, 2016). Larsen (2007) described the tourist experience as past travel-related events that are assimilated into long-term memory; that is, the tourist experience is preserved through enduring memories (Ryan, 1997). Memorable experiences have begun to attract research attention given the inseparability between experiences and memories in tourism (Kim, 2010).

Empirical research has confirmed that the tourist experience substantially affects people's memories (Kim, Ritchie, & Mccormick, 2012). Experience represents a basic element of memory formation and is tied to memories' vividness (Pan, Lin, & Wang, 2016). Tourists' involvement in activities such as sightseeing, memorial ceremonies, revolutionary celebrations, historical reenactments, and large-scale exhibitions can strengthen personal memories (Wu, 2017). Activities involving stronger emotions tend to be more readily recalled (Bohanek, Fivush, & Walker, 2005).

Under the S–O-R framework, tourists develop experiences through stimulation from tourism activities, leading to behavioral responses via a series of psychological processes. Tourists' perceptions of the red cultural atmosphere constitute a form of people–place interaction (i.e. a stimulus). The tourist experience is a key mediator of perceptions of the red cultural atmosphere which influence red memory (Tung & Ritchie, 2011). Yin and Huang (2019) found the tourist experience to play a full mediating role between visitors' engagement and memories. Based on the foregoing discussion, perceptions of the red cultural atmosphere can be regarded as the stimuli that form an experience. Tourists will retain unique experiences as memories. Moreover, the tourist experience can mediate the impact of the red cultural atmosphere on red memory. The following hypotheses are put forth:

H9. Red tourist experiences positively influence red memory development.

H10. Red tourist experiences positively influence red memory improvement.

H11. Red tourist experiences positively influence red memory correction.

H12. Red tourist experiences mediate the relationship between the red cultural atmosphere and red memory.

2.2.4. Cohort effect on the construction of red memory

The Chinese government has acknowledged the educational importance of red tourism. Many red tourism attractions, such as Mount Jinggang, have even been designated as Patriotic Educational Bases for young generations (e.g. millennials and post-millennials). The 'cohort effect' in red tourism memory development thus merits attention. According to Zhang and Ma (2020), the perceived appeal of red tourism is lower among younger Chinese citizens. Tourists from distinct cohorts demonstrate varying degrees of interest in red tourism and differential capabilities to appreciate related attractions and experiences. Schuman and Scott (1989) explored the connections between generations and social memory by asking different-aged cohorts to rank historical events by perceived importance. The authors found that cohorts arranged these event memories and social changes in unique ways. Adolescence and early adulthood were identified as the primary periods for generational imprinting. Taking these ideas into account, this study posits that:

H13. The effect of red tourism on red memory differs for tourists of different age groups.

The theoretical model underpinning this study, based on the preceding hypotheses, appears in Fig. 1.

3. Research methods

3.1. Study area

The study data were collected from Mount Jinggang in Jiangxi Province, China. In October 1927, Mao Zedong led the Autumn Harvest Uprising troops to Mount Jinggang, which was later established as the first rural revolutionary base in China. Mao Zedong opened up a revolutionary road by using the rural base to ravage cities and seizing state power with military force, ushering a new chapter in Chinese revolutionary history. Mount Jinggang has since become a landmark of the country's revolution.

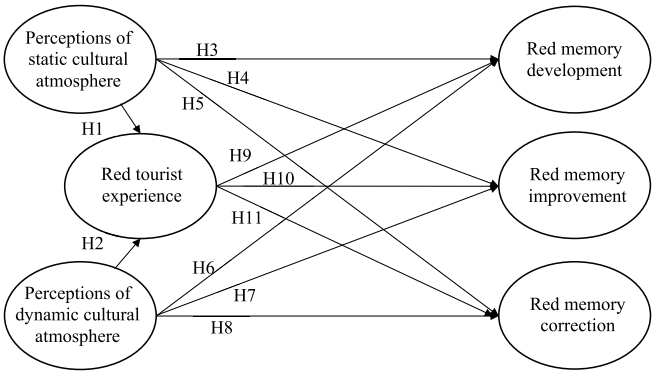

Fig. 1. Hypothesized structural model.

Today, Mount Jinggang is a nationally-renowned tourist destination for patriotic education. It has been named one of the top 10 social education sites in China and is recognized as a national park and historic site. With its revolutionary history and natural scenery, Mount Jinggang was listed as a national major red tourism area and classical red tourism destination in 2004. In 2017, tourist arrivals to the site reached 17.3 million, and overall tourism revenue was 13.89 billion RMB Yuan—a 13.23% and 14.74% increase over the prior year, respectively.

3.2. Measurement items

All measurement items were taken from the red tourism literature (see Table 1), concerning visitors' perceptions of Mount Jinggang's red cultural atmosphere; their red tourist experiences; and resultant red memory development, improvement, and correction. Respondents were approached on site and asked to describe their perceptions of red tourism on a 5-point Likert-type scale (1 = strongly disagree, 5 = strongly agree). A 6-factor measurement model was then established. Items pertaining to the site's static and dynamic cultural atmosphere were partly adapted from Turley and Milliman (2000), Chen (2014), and Xu, Zhu, and Zhang (2016). Zuo (2014)'s red tourist experience framework provided several items related to education, authenticity, entertainment, and information. Red memories were evaluated based on the processes of memory development, improvement, and correction. Memory development measures were drawn from Winter (2009); those related to memory improvement were borrowed from Tung and Ritchie (2011)'s work on tourists' experience recall; and those related to memory correction were adopted from Anteby and Molnar (2012), Liu (2018), and Zhou (2013). This survey also included nine questions pertaining to tourist behavior, such as visitors' interest in red tourism, travel motivations, and experience evaluation. The final survey section focused on participants' demographic attributes (e.g. gender, age, political status, education level, occupation, and income). As shown in Table 1, the normal distribution hypothesis cannot be rejected for most items at the 0.05 significance level.

3.3. Data collection and sample characteristics

3.3.1. Data collection

According to the research plan, a pilot study was conducted with student respondents offsite to verify the appropriateness of survey questions. Some items' phrasing and content were adjusted as a result.

Table 1
Descriptive statistics of measurement items in questionnaire.

Construct	Measurement item	Mean	Standard Deviation	Skewness	Kurtosis	W′	*p*-value
Perceptions of static red cultural atmosphere (SCA)	The historical battlefields and relics embody the red culture (SCA1)	3.856	0.961	−0.726	3.405	0.990	0.021
	Museum of revolution and the monument in Mount Jinggang represent the red culture (SCA2)	3.833	0.960	−0.699	3.282	0.991	0.041
	Landscape elements, like sculpture and signs, demonstrate the characteristics of red culture (SCA3)	3.645	0.979	−0.466	2.740	0.996	0.446
	The propaganda slogan in Mount Jinggang has the connotation of red culture (SCA4)	3.651	0.984	−0.369	2.658	0.999	0.997
	Exhibitions and tourist souvenirs about the revolutionary period of history embody the red culture (SCA5)	3.677	1.080	−0.456	2.501	0.998	0.929
Perceptions of dynamic red cultural atmosphere (DCA)	Experiencing activities creates the red culture atmosphere (DCA1)	3.680	1.026	−0.491	2.805	0.997	0.645
	Reproducing revolutionary scene by modern technology renders red culture (DCA2)	3.666	1.037	−0.518	2.812	0.996	0.413
	Living performance and plays like “Mount Jinggang” represent red culture (DCA3)	3.710	1.082	−0.604	2.669	0.992	0.072
	Red-themed music and films create a strong red culture atmosphere (DCA4)	3.733	1.041	−0.499	2.632	0.998	0.843
	The tour guides keep the authenticity of red history and red culture (DCA5)	3.701	0.993	−0.384	2.637	0.999	0.999
Red tourist experience (RTE)	I think travel to Mount Jinggang is very educational (RTE1)	3.868	1.022	−0.744	2.990	0.990	0.024
	Traveling to Mount Jinggang offers a red education opportunity to me (RTE2)	3.839	1.000	−0.662	2.920	0.993	0.122
	I think Mount Jinggang represents the revolutionary history authentically (RTE3)	3.830	0.976	−0.737	3.307	0.989	0.016
	I experienced the real revolutionary life during this tour (RTE4)	3.677	1.012	−0.378	2.467	0.999	0.981
	I think red tourism activities in Mount Jinggang are entertaining (RTE5)	3.182	1.036	−0.019	2.698	0.999	0.997
	I think the red tourism activities in Mount Jinggang are edutainment (RTE6)	3.595	0.982	−0.295	2.529	0.999	1.000
	Traveling to Mount Jinggang has enriched my knowledge of revolutionary history (RTE7)	3.959	0.984	−1.085	4.050	0.970	0.000
	Traveling to Mount Jinggang has deepened my understanding of red culture (RTE8)	3.962	1.015	−0.835	3.038	0.987	0.006
Red memory development (MD)	I have formed a new understanding of the revolutionary history of Mount Jinggang during this tour (MD1)	3.812	0.997	−0.634	2.895	0.994	0.150
	I have formed my new understanding of Chinese red culture during this tour (MD2)	3.774	0.996	−0.662	3.057	0.992	0.051
Red memory improvement (MI)	I have deepened memory of the revolutionary history of Mount Jinggang during this tour (MI1)	3.880	0.979	−0.736	3.149	0.991	0.039
	I have strengthened Chinese red culture identity during this tour (MI2)	3.874	0.954	−0.560	2.683	0.996	0.530
Red memory correction (MC)	I have modified the bias of the revolutionary history of Mount Jinggang during this tour (MC1)	3.469	1.019	−0.201	2.586	1.000	1.000
	I have rectified the original recognition of red history and culture during this tour (MC2)	3.557	1.032	−0.403	2.807	0.997	0.737

(Note: W′ indicates the statistic of Shapiro-Francia W′, and *p*-value indicates the *p*-value of Shapiro-Francia W′ test for normal data.).

The main survey was conducted between October 3, 2018 and October 5, 2018 in Mount Jinggang. In total, 274 questionnaires were collected at the Museum of Revolution and nearby tourist attractions. Twenty-eight invalid questionnaires with a significant number of missing values were excluded from analysis. The survey was also administered online via a professional survey platform in China. Specifically, a link to the questionnaire was distributed through online messages to users who mentioned having traveled to Mount Jinggang in their posts on Weibo (a Chinese social networking platform). Overall, 116 questionnaires were collected online, 95 of which were valid. The final analysis included 341 useable surveys. Next an independent samples *t*-test was conducted to check the consistency of on-site and online samples; Table 2 shows that no significant differences were observed between the two groups of data ($p > 0.05$).

Guided by the principles of constructivism, an interpretive research design was employed to gather qualitative data. Semi-structured interviews are a common qualitative data collection method, in which flexible interviews are performed to elicit informants' thoughts on topics in their own words (Deery, 2012). Thirty-six in-depth semi-structured interviews were conducted with red tourists from June 7, 2019 to June 9, 2019 in Mount Jinggang. Interview questions focused on interviewees' descriptions of the red tour and their perceptions of the

Table 2
Results of *t*-test on the differences between the on-site and online data.

Construct	Source	Mean	Standard Deviation	*p*-value
Perceptions of static red cultural atmosphere (SCA)	On-site	3.7317	0.81689	0.976
	Online	3.7347	0.84775	
Perceptions of dynamic red cultural atmosphere (DCA)	On-site	3.6935	0.84150	0.878
	Online	3.7095	0.91873	
Red tourist experience (RTE)	On-site	3.7267	0.78227	0.598
	Online	3.7772	0.78436	
Red memory development (MD)	On-site	3.7805	0.91951	0.683
	Online	3.8263	0.94747	
Red memory improvement (MI)	On-site	3.8618	0.89739	0.623
	Online	3.9158	0.93300	
Red memory correction (MC)	On-site	3.4756	0.94837	0.244
	Online	3.6105	0.97898	

site's red cultural atmosphere. Also, interviewees were asked about the authenticity of the site's revolutionary history; the site's educational impact; and the development, improvement, and correction of red memories. Tourists were interviewed while relaxing near red tourism sites or waiting at the transport hub. A few interviews were terminated due to participants' lack of interest or time constraints. Empirical research was carried out using structural equation modeling (SEM), and path analysis results were addressed based on relevant theories and findings from semi-structured interviews.

3.3.2. Sample description

A demographic profile of respondents is presented in Table 3. Among 341 valid responses, more were collected from women (55.7%) than men (44.3%). Most respondents were 18–28 years old (49.6%), and one-third (35.8%) were students. In terms of education, slightly more than half of respondents held a bachelor's degree or higher (57.5%). Nearly half (46.9%) reported an average monthly income of less than 3000 RMB Yuan.

4. Results

4.1. Measurement model analysis

Following the procedure recommended by Anderson and Gerbing (1988), data were analyzed using a two-step approach in which the overall measurement model was first tested and the structural model was assessed thereafter. A confirmatory factor analysis (CFA) with maximum likelihood estimation was conducted in the first step to identify whether items in the measurement model reasonably reflected a priori latent variables. The adequacy of each item and its composites was assessed using commonly accepted measures of reliability and validity. Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) values were computed to determine if the measured items could feasibly be used to assess each construct. The model's convergent and discriminant validity were also tested based on AVE values, which should ideally exceed 0.50 to ensure convergent validity (Hair, Anderson, Tatham, & Black, 1998). Fornell (1981)'s test of discriminant validity was performed as well; in particular, the variance extracted from each measure should be greater than the respective correlation estimates among factors.

Table 3
Descriptive statistics of demographic variables.

Variable	Category	Observations	Percentage (in %)
Gender	Male	151	44.3
	Female	190	55.7
Age	Under 18	56	16.4
	18–28	169	49.6
	29–38	49	14.4
	39–48	41	12.0
	49–60	20	5.9
	61 and above	6	1.8
Political status	General public	90	26.4
	Communist Youth League	137	40.2
	CPC	95	27.9
	A party other than CPC	19	5.6
Education	High school degree or below	74	21.7
	Associate degree	71	20.8
	Bachelor's degree	144	42.3
	Graduate degree	52	15.2
Occupation	Civil servant	11	3.2
	Public institution personnel	48	14.1
	Corporate employee	84	24.6
	Worker	9	2.6
	Farmer	8	2.3
	Student	122	35.8
	Retiree	4	1.2
	Self-employed	20	5.9
	Other	35	10.3
Income per month (in RMB Yuan)	Below 3000	160	46.9
	3001–5000	68	19.9
	5001–8000	62	18.2
	8001 and above	51	15.0

First, the six latent variables in the model were analyzed via first-order CFA in Mplus 7.0. Items were excluded from each construction based on standardized factor loadings, the ratio of chi-square to the degrees of freedom, root mean square error of approximation (RMSEA), comparative fit index (CFI), Tucker–Lewis index (TLI), and standardized root mean square residual (SRMR). More specifically, these indices were used to assess model fit; a standardized factor loading of 0.7 or higher was preferred, although loadings of 0.4 or higher were deemed acceptable (Hulland, 1999). Ideally, the ratio of chi-square to the degrees of freedom should be less than 3 (Carmines & McIver, 1981), and CFI and TLI values should each exceed 0.9 (Bentler, 1992). Criterion values for RMSEA and SRMR should be less than 0.8. Based on results, four items related to the red tourist experience (RTE1, RTE5, RTE6, and RTE7) were omitted from subsequent analysis.

Reliability analysis reflects a scale's internal consistency and reliability. Cronbach's alpha coefficients were initially adopted to measure questionnaire's reliability in SPSS 24.0. Cronbach's alpha values (0.842–0.890) for all measures (full-scale $\alpha = 0.956$) indicated acceptable internal consistency across items within the constructs. Convergent validity was examined via several tests. Estimated AVE values of all six constructs (0.611–0.759) surpassed the threshold (see Table 4). Model reliability was evaluated based on squared multiple correlation coefficients (SMC), which convey the degree of variance in each endogenous variable interpreted by exogenous variables. Table 4 shows that the SMCs ranged from 0.417 to 0.801, indicating fairly high reliability for the measurement model. CR estimates, ranging from 0.842 to 0.891, suggested adequate internal consistency for multiple indicators under each latent variable in the model. These results were thus satisfactory based on CR values. The model exhibited sufficient convergent validity as well.

Lastly, the model's discriminant validity was tested. The square root of the AVE for each latent variable should be greater than correlations among the latent variables (Fornell, 1981). Most square roots of AVE values exceeded the correlation coefficients between latent variables; as such, the model showed acceptable discriminant validity (see Table 5). The analysis of the measurement model ultimately demonstrated ample evidence of reliability and validity.

4.2. Structural equation modeling

After confirming the model's reliability and validity, SEM analysis was carried out in Mplus 7.0 to assess the extent of predictive relationships and hypotheses between the six latent variables. SEM is a multivariate statistical analysis method that can measure paths between concepts and their hypothetical relationships simultaneously (Klem, 2000). Maximum likelihood estimation was used to estimate an overall model fit and path coefficients to explore the causal relationships proposed in hypotheses. The model's goodness of fit was assessed based on a chi-square of 275.339 with 155 degrees of freedom (i.e. $\chi^2/df = 1.777$). The RMSEA was 0.048; the CFI and TLI were 0.976 and 0.970, respectively; and the SRMR was 0.031. These indices showed a satisfactory model fit based on the data.

SEM was adopted to identify the significance of estimated path coefficients and test research hypotheses across constructs. Estimated standardized path coefficients between latent variables and hypothesis testing results appear in Table 6. Visitors' perceptions of Mount Jinggang's static red cultural atmosphere positively influenced their red tourist experiences ($\beta = 0.433$, $p < 0.001$), and their perceptions of

Table 4
Estimation results for measurement model.

Construct	Indicator	Mean	Parameter saliency estimation				Topic reliability		Composite reliability	Convergent validity
			Unstandardized estimate	Standard error	Unstandardized estimate/Standard error	*p*-value	Standardized estimate	SMC (R^2)	CR	AVE
Perceptions of static red cultural atmosphere (SCA)	SCA1	3.8563	1.000	–	–	–	0.831	0.691	0.887	0.611
	SCA2	3.8328	0.923	0.057	16.193	0.000	0.768	0.590		
	SCA3	3.6452	0.938	0.059	15.781	0.000	0.765	0.585		
	SCA4	3.6510	0.941	0.06	15.724	0.000	0.763	0.582		
	SCA5	3.6774	1.053	0.064	16.341	0.000	0.779	0.607		
Perceptions of dynamic red cultural atmosphere (DCA)	DCA1	3.6804	1.000	–	–	–	0.774	0.599	0.890	0.620
	DCA2	3.6657	1.078	0.066	16.207	0.000	0.825	0.681		
	DCA3	3.7097	1.096	0.069	15.886	0.000	0.805	0.648		
	DCA4	3.7331	1.137	0.066	17.178	0.000	0.868	0.753		
	DCA5	3.7009	0.808	0.066	12.194	0.000	0.646	0.417		
Red tourist experience (RTE)	RTE2	3.8387	1.000	–	–	–	0.802	0.643	0.891	0.671
	RTE3	3.8299	0.955	0.062	15.455	0.000	0.785	0.616		
	RTE4	3.6774	1.08	0.064	16.889	0.000	0.855	0.731		
	RTE8	3.9619	1.054	0.062	16.877	0.000	0.833	0.694		
Red memory development (MD)	MD1	3.8123	1.000	–	–	–	0.857	0.734	0.842	0.728
	MD2	3.7742	0.99	0.05	19.721	0.000	0.849	0.721		
Red memory improvement (MI)	MI1	3.8798	1.000	–	–	–	0.886	0.785	0.863	0.759
	MI2	3.8739	0.942	0.045	20.734	0.000	0.856	0.733		
Red memory correction (MC)	MC1	3.4692	1.000	–	–	–	0.895	0.801	0.854	0.746
	MC2	3.5572	0.94	0.066	14.163	0.000	0.831	0.691		

Table 5
Discriminant validity.

Construct	Convergent validity	Discriminant validity					
	AVE	SCA	DCA	RTE	MD	MI	MC
SCA	0.611	0.782					
DCA	0.620	0.861	0.787				
RTE	0.671	0.745	0.735	0.819			
MD	0.728	0.826	0.832	0.790	0.853		
MI	0.759	0.827	0.832	0.761	0.977	0.871	
MC	0.746	0.540	0.548	0.533	0.691	0.625	0.864

Table 6
Research model regression weights and hypotheses.

Hypothesis	Path	Unstandardized path coefficient	S.E.	*z*	*p*-value	Standardized path coefficient (ß)	Results
H1	SCA→RTE	0.453	0.115	3.936	0.000	0.433	Supported
H2	DCA→RTE	0.382	0.116	3.286	0.001	0.362	Supported
H3	SCA→MD	0.304	0.109	2.800	0.005	0.286	Supported
H4	SCA→MI	0.350	0.108	3.226	0.001	0.322	Supported
H5	SCA→MC	0.179	0.159	1.122	0.262	0.157	Rejected
H6	DCA→MD	0.380	0.108	3.532	0.000	0.353	Supported
H7	DCA→MI	0.410	0.108	3.794	0.000	0.373	Supported
H8	DCA→MC	0.270	0.161	1.679	0.093	0.234	Rejected
H9	RTE→MD	0.324	0.069	4.709	0.000	0.318	Supported
H10	RTE→MI	0.257	0.069	3.750	0.000	0.247	Supported
H11	RTE→MC	0.268	0.100	2.687	0.007	0.245	Supported

Note: SCA = Static red cultural atmosphere, DCA = Dynamic red cultural atmosphere, RTE = Red tourist experience, MD = Memory development, MI = Memory improvement, MC = Memory correction.

dynamic red cultural atmosphere positively influenced their red tourist experiences ($\beta = 0.362$, $p < 0.01$); therefore, H1 and H2 were supported. Tourists' perceptions of the static red cultural atmosphere positively affected their memory development ($\beta = 0.286$, $p < 0.01$) and memory improvement ($\beta = 0.322$, $p < 0.01$) but had no statistically significant impact on memory correction. Therefore, H3 and H4 were accepted while H5 was rejected. Likewise, tourists' perceptions of the dynamic red cultural atmosphere in Mount Jinggang positively influenced memory development ($\beta = 0.353$, $p < 0.001$) and memory improvement ($\beta = 0.373$, $p < 0.001$) but were not statistically associated with memory correction. H6 and H7 were hence supported whereas H8 was not. Lastly, the red tourist experience positively affected visitors' memory development ($\beta = 0.318$, $p < 0.001$), memory improvement ($\beta = 0.247$, $p < 0.001$), and memory correction ($\beta = 0.245$, $p < 0.01$), lending support to H9, H10, and H11. As H5 and H8 were rejected, tourists' perceptions of cultural atmosphere did not significantly influence their red memory correction. Fig. 2 depicts standardized coefficients for the final structural model; only significant path coefficients are highlighted.

As shown in Table 6, compared to the site's dynamic cultural atmosphere, its static red cultural atmosphere had a larger impact on visitors' red tourist experiences (0.433 vs. 0.362). In other words,

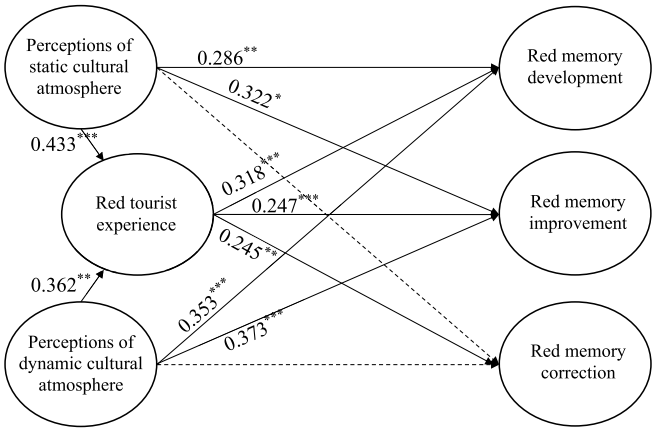

Fig. 2. Estimation results of structural model. (Note: $^{**}p < 0.01$, $^{***}p < 0.001$; dashed line indicates path with insignificant path coefficients).

tourists obtained better experiences from static elements of Mount Jinggang's cultural atmosphere. Moreover, the red tourist experience had a more positive effect on red memory development (0.318) than on red memory improvement (0.247) and correction (0.245). In terms of the total effect, Mount Jinggang's static atmosphere had a uniform influence on memory development and improvement (0.423 and 0.429, respectively). The dynamic atmosphere affected these two memory constructs equally as well (0.468 for memory development vs. 0.462 for memory correction).

4.3. Mediation effect

A bootstrapping method with bias-corrected 97.5% confidence intervals was performed using 1000 random samplings to explore the mediating effect of tourist experience (Muthén & Muthén, 2015). Table 7 shows the results of all mediation effects, and the 97.5% confidence interval of all estimates does not include 0. The tourist experience partially mediated the relationship between the red cultural atmosphere and memory development and improvement. The tourist experience completely mediated the relationship between the red cultural atmosphere and memory correction, lending empirical support to H12.

Table 7
Results of mediating test.

Path	Indirect Effect	97.5% Confidence interval		Direct Effect	97.5% Confidence interval	
		Boot Lower	Boot Upper		Boot Lower	Boot Upper
SCA-RTE-MD	0.138	0.040	0.313	0.286	0.008	0.676
SCA-RTE-MI	0.107	0.017	0.317	0.322	0.039	0.692
SCA-RTE-MC	0.106	0.028	0.303	0.157	−0.164	0.532
DCA-RTE-MD	0.115	0.026	0.339	0.353	0.079	0.717
DCA-RTE-MI	0.089	0.019	0.284	0.373	0.069	0.701
DCA-RTE-MC	0.089	0.014	0.309	0.234	−0.098	0.657

4.4. Multi-group analysis

As claimed by UNWTO (2008), tourists aged between 15 and 29 years are referred to as young tourists. Therefore, the age of 29 was used as the cut-off point to study the cohort effects. A multi-group analysis was conducted using two age groups: Group A, containing tourists born in 1990s ($n = 169$); and Group B, whose members were born in the 1970s and 1980s ($n = 90$), to explore the differences between tourist cohorts in terms of red memory construction. Multi-group analysis was specifically employed to examine the differences between the unconstrained model or baseline model (with all parameters freely estimated) and five constrained models or nested models (with some parameters set equal). Table 8 shows that goodness-of-fit indicators (e.g. TLI, CFI, RMR, SRMR) were all within an acceptable range. Results indicated no significant differences between the constrained and baseline models. Findings also reflected the models' invariance across Groups A and B. Thus, age grouping did not affect the models' validity, and the subsequent path analysis was deemed reliable.

By comparing the fitness of baseline model and five constrained models, the baseline model was selected as the multi-group analysis model for Groups A and B. Results appear in Table 9. Compared with Group B, the red tourist experience significantly influenced Group A's red memory development, improvement, and correction. Perceptions of Mount Jinggang's static cultural atmosphere also had a significant effect on Group A's red tourist experience and red memory improvement. In addition, perceptions of the site's dynamic cultural atmosphere significantly affected Group B's red tourist experience, whereas this impact was not significant for Group A. These results collectively support H13, suggesting that the effect of red tourism on red memory construction varied across these age groups.

5. Discussion & conclusion

5.1. Discussion

Empirical results uncovered a significant effect of the red cultural atmosphere on red tourist experiences. SEM analysis confirmed that visitors' perceptions of Mount Jinggang's static and dynamic red cultural atmosphere positively influenced their tourist experiences, with the static cultural atmosphere having a slightly stronger impact. This pattern implies that, in the case of red tourism, tangible and explicit material environments more directly stimulate tourists' senses and have stronger positive effects on the tourist experience than dynamic environments. Red tourism destinations also serve as a political environment for travelers; visitors can enjoy positive tourist experiences by partaking in red tourism activities (Zuo, 2014). This result aligns with Dong and Siu (2013)'s finding that scenes significantly positively influence tourists' experiences. Mount Jinggang possesses a strong red cultural atmosphere, and tourists' positive perceptions of this atmosphere seemed to result in unique experiences. Interview participants offered the following commentary:

> "The red cultural atmosphere is still very intense. No matter where you go, you can feel the red culture of Mount Jinggang." (T01 – Man)

> "The atmosphere is quite strong. Not only in the scenic spots but also all kinds of red elements in the streets rendering a red atmosphere, so the whole town has this atmosphere." (T02 – Woman)

Tourists' perceptions of red cultural atmosphere also shaped their red memories. Perceptions of the static and dynamic red cultural atmosphere each had positive effects on red memory development and improvement. Unlike previous studies, this study covered two separate dimensions of the red cultural atmosphere: static and dynamic. This dichotomy better unveiled the nuances of cultural atmosphere as well as its psychological consequences on various behavioral outcomes. The tourist experience was incorporated as a mediator that could mitigate

Table 8
Model fit summary.

Model	χ^2	$\Delta\chi^2$	*df*	Δ *df*	$\Delta\chi^2$ (p)	χ^2/df	TLI	ΔTLI	CFI	ΔCFI	RMR	RMSEA
Unconstrained	540.428	–	316	–	–	1.710	0.932	–	0.944	–	0.050	0.053
Measurement weights	552.591	12.163	330	14	0.593	1.675	0.936	0.004	0.944	0.000	0.061	0.051
Structural weights	568.156	15.565	341	11	0.158	1.666	0.936	0.000	0.943	−0.001	0.074	0.051
Structural covariances	568.926	0.770	344	3	0.857	1.654	0.938	0.002	0.944	0.001	0.074	0.050
Structural residuals	572.526	3.600	348	4	0.463	1.645	0.938	0.000	0.944	0.000	0.076	0.050
Measurement residuals	601.012	28.486	368	20	0.098	1.633	0.940	0.002	0.942	−0.002	0.075	0.050

Table 9
Results of multi-group analysis.

Path	Groups	Unstandardized path coefficient	S.E.	*z*	*p*-value	Standardized path coefficient
SCA→RTE	A	0.644	0.190	3.387	<0.001	0.530
	B	0.189	0.206	0.914	0.361	0.192
DCA→RTE	A	0.227	0.154	1.473	0.141	0.226
	B	0.554	0.183	3.019	0.003	0.656
SCA→MD	A	0.327	0.199	1.641	0.101	0.267
	B	0.121	0.214	0.568	0.570	0.123
SCA→MI	A	0.472	0.202	2.341	0.019	0.383
	B	0.044	0.222	0.197	0.844	0.042
SCA→MC	A	0.152	0.251	0.604	0.546	0.119
	B	0.092	0.315	0.292	0.770	0.076
DCA→MD	A	0.464	0.149	3.117	0.002	0.459
	B	0.811	0.237	3.420	<0.001	0.956
DCA→MI	A	0.413	0.152	2.715	0.007	0.405
	B	0.793	0.238	3.329	<0.001	0.893
DCA→MC	A	0.394	0.195	2.018	0.044	0.372
	B	0.687	0.312	2.201	0.028	0.658
RTE→MD	A	0.294	0.082	3.566	<0.001	0.292
	B	−0.123	0.163	−0.755	0.450	−0.122
RTE→MI	A	0.195	0.085	2.306	0.021	0.192
	B	0.010	0.168	0.057	0.955	0.009
RTE→MC	A	0.261	0.116	2.251	0.024	0.248
	B	−0.243	0.258	−0.939	0.348	−0.196

the impacts of cultural atmosphere perceptions on red memories. Dynamic elements of Mount Jinggang's red cultural atmosphere, such as the use of sound and light along with site interpretation, red-themed activities, and live performances, were found to elicit and enhance tourists' red memories. These memories were also closely related to the dynamic elements of the area's cultural atmosphere. A young tourist stated:

> "I can feel the red cultural atmosphere of Mount Jinggang and feel that there is a revolutionary atmosphere everywhere; for example, when people look at the heritage with a sense of age, their admiration for the revolutionary heroes arises spontaneously." (T03 – Man)

Empirical results corroborate those of earlier work. For instance, Zhao and Timothy (2015) suggested that experiencing harsh living conditions in an environment first-hand is much more persuasive than textual or oral interpretation. Xu and Zhu (2016) stated that cultural atmosphere could strengthen tourists' memories. However, it was found that tourists' perceptions of Mount Jinggang's static and dynamic cultural atmosphere had no direct effect on red memory correction. In fact, in a centralized country like China, patriotic education remains steady from beginning to end. This consistency may cause tourists' red memories to be identical or only negligibly different, leaving limited room for red memory correction. In addition, this paper expanded existing studies by considering the dynamics of red memory in relation to memory development, improvement, and correction. This effort contributes to the current literature by shedding light on the evolving nature of red memory, as a type of social memory, in modern society; essentially, people's memories can be molded by myriad factors.

The tourist experience appeared to have a positive effect on visitors' red memory development, improvement, and correction. Additionally, the impact of the tourist experience on memory development was stronger than that on memory improvement and correction. These patterns imply that red tourist experiences have a significant impact on red memory development and thus promote visitors' recall of specific red tourism details. This argument affirms studies indicating that tourist experiences positively affect memory formation (Yin & Huang, 2019). Although the cultural atmosphere was not associated with memory correction at Mount Jinggang, the red tourist experience was found to shape visitors' red memory correction. One reason for this finding is that red tourist experiences tend to carry stronger emotional connotations than red cultural atmosphere perceptions; only through in-depth experiences can inaccurate red memories be modified.

Interestingly, a cohort effect was recognized in red memory construction. Although red tourism had significant effects on young tourists' red memory development, improvement and correction via the tourist experience, these effects were not significant for older tourists. Psychological studies have shown that the development of spontaneous incorrect memories increases with age (Sugrue & Hayne, 2006), which is different from the conclusions of this study. This disparity may have emerged because, in the Internet era, younger people can obtain information via diverse channels. Grassroots outlets and unauthorized information may influence these individuals' information judgments, leading to inaccurate perceptions of red tourism. Conversely, older group was more familiar with actual red history, more skillfully process information involving positive emotions (Reed & Carstensen, 2012) and are generally more nostalgic than younger people (Holbrook & Schindler, 1996), which may leave little space for red memory development, improvement and correction. This study found the impact of red tourism on red memories to be more substantial for young tourists based solely on the static cultural atmosphere.

5.2. Conclusion

This study enriches the red tourism literature in terms of red memory. Theoretically, research findings enhance the understanding of how red tourism can foster red memories through perceptions of the cultural atmosphere and the tourist experience; these topics have been largely untapped in past studies. Empirically, a structural model was proposed and estimated to evaluate antecedents of red memory development, improvement, and correction. The study also preliminarily explored whether the tourist experience is a mediator of these influences. Results indicated that red tourism fosters red memory construction by creating a unique red cultural atmosphere and promoting authentic experiential activities, and these effects were found to vary by age cohorts.

Specifically, tourists' perceptions of Mount Jinggang's static and dynamic red cultural atmosphere positively influenced these visitors' red memory development and improvement but not memory correction. Tourists' red memories constructed through red tourism were therefore mostly consistent with existing memories, allowing for limited correction. Red tourist experiences functioned as a mediator in the relationship between a red cultural atmosphere and red memory constructs, significantly affecting all three (i.e. memory development, improvement, and correction). Additionally, the role of red tourism in cultivating tourists' red memories varied generationally.

The CPC has ideologically wielded red tourism, a type of preplanned political tourism, to promote China's communist history and deliver the Party's agenda by interpreting red heritage. Moreover, red tourism in China is thought to play a significant role in promoting patriotic education, a sense of national identity, and national pride. This work expands the understanding of red tourism and political tourism by empirically assessing tourists' perceptions of Mount Jinggang's red cultural atmosphere, red tourist experiences, and red memories, constructs that have not been empirically tested previously. The notion of red memory also provides a new direction for the nexus of tourism and memory research.

5.3. Implications

Research findings revealed that visitors' perceptions of Mount Jinggang's red cultural atmosphere and their red tourist experiences can generate red memories. A red tourism destination's development should thus be considered equally as important as cultural atmosphere construction and red tourist experience design. For example, red tourism destinations should implement strategic plans to create a coherent cultural atmosphere across site locations. These destinations should embrace the 'red' theme when designing attractions and planning their tourism area. By doing so, destinations can present to tourists an authentic environment that embodies an immersive red cultural atmosphere. Destination managers should also aim to design diverse, authentic red-themed activities. By participating in these activities, visitors can experience a genuine red cultural environment that facilitates the development of red memories. One issue worth noting here is the potential over-commercialization of red tourism destinations, which could sacrifice the cultural atmosphere's authenticity and detract from tourists' experiences.

More generally, red tourism developers should consider ways to improve the tourist experience. According to Pine and Gilmore (1999), participation and immersion can invigorate visitors' tourist experiences. Mount Jinggang can alter its design of red-themed activities by integrating modern technology to enliven tourists' experiences. In addition to promoting tourists' participation through red-themed activities, managers of red tourism destinations can strengthen visitors' perceptions of the cultural atmosphere along with their overall experiences by showcasing ceremonial activities during festivals. These activities and others, if well-tailored, can reinforce tourists' cultural experiences and satisfaction (Ziakas & Boukas, 2013).

Last but not least, red tourism destinations should emphasize the preservation of historical heritage, especially that directly associated with red memories. As a form of social memory, red memories weaken or vanish over generations. Currently, red memories are most poignant for historical battlefields and relics, folk stories, and revolutionary history. However, these places risk losing their authenticity to renovation and community renewal. The development of red tourism destinations should thus revolve around the principle of maintaining sites' original conditions to the extent possible: site managers must be deliberate in protecting a destination's historical environment and memorial facilities to uphold the historical authenticity of revolutionary relics.

5.4. Limitations

Some limitations may temper the generalizability of results. First, as a multifaceted concept, red memories can be shaped by a range of factors. Apart from those considered in this study, additional characteristics such as place attachment and perceived authenticity may come into play. Subsequent studies should investigate other antecedents of red memory. Second, data from Mount Jinggang were cross-sectional and did not evaluate the effect of information tourists gained before and after their visits. Future research should explore the longitudinal impact of red culture-related information on tourists. Third, a unidimensional item was used to measure the red tourist experience, but this experience can be multidimensional. Future studies can carefully consider the structure of tourist experience dimensions according to the research setting.

Author statement

Dr. Wenyue Tang is responsible for funding acquisition, project administration, conceptualization, methodology design, and reviewing the first draft.

Mr. Liangquan Zhang is responsible for formal analysis and writing the first draft.

Dr. Yang Yang is responsible for project supervision, writing the first draft, data and analysis verification, and reviewing the first draft.

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