Family tourists’ emotional responses at world heritage sites (WHSs): the effects of existential authenticity and interpersonal interaction

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Abstract

Purpose — The purpose of this study is to investigate family tourists’ emotional responses at world heritage sites (WHSs) by using cognitive appraisal theory (CAT).

Design/methodology/approach — The online survey was conducted targeting the family tourists who had travel experience at Pingyao Ancient City, a United Nations Educational, Scientific and Cultural Organization world heritage destination in Northern China.

Findings — Data analysis with 347 family tourists to the site, via structural equation modeling analysis, revealed that existential authenticity (i.e. intrapersonal and interpersonal authenticity) and family interpersonal interaction help evoke emotional experience, which generates family cohesion and storytelling behavior as responses.

Originality/value — This study results contribute to an existing body of literature on the ability of CAT to illustrate how emotional experience forms in the context of family tourism at WHSs. The study also provides a clear understanding on how to elicit emotions among family tourists at heritage destinations.

Keywords Motivational factor, Cognitive appraisal theory (CAT). Goal congruence and goal relevance, Co-creation, Storytelling behavior, Family cohesion

Paper type Research paper

世界遗产地家庭旅游者的情感反应：存在主义真实性和人际互动的影响

摘要

目的: 旨在运用认知评价理论 (CAT) 探讨家庭旅游者在世界遗产地 (WHSs) 的情感反应。

设计/方法/步骤：这项线上调查的对象为游览过平遥古城的家庭旅游者。平遥古城是一个位于中国北方的联合国教科文组织中的世界文化遗产。

研究结果：本研究通过结构方程模型对由347名家庭旅游者提供的数据进行分析显示，存在的真实性（即个人内部和人际真实性）和家庭互动有助于唤起情感体验，从而产生家庭凝聚力和故事讲述行为的情感反应。

独创性/价值：本研究结果为有关认知评价理论（CAT）的现有文献做出了贡献，说明了世界遗产地家庭旅游的背景下情感体验如何形成的。该研究也为文化遗产目的地如何开发家庭旅游的情境提供了清晰的解释。

关键词 动机因素，认知评价理论（CAT），目标一致性和目标相关性，共创行为，故事讲述行为，家庭凝聚力

Resuestas emocionales de los turistas familiares en los sitios del patrimonio mundial (WHS): los efectos de la autenticidad existencial y la interacción interpersonal

Resumen

Proposíts: El propósito de este estudio es investigar las respuestas emocionales de los turistas familiares en los sitios del Patrimonio Mundial (WHS) mediante el uso de la teoría de evaluación cognitiva (CAT).

Received 28 January 2023
Revised 10 March 2023
Accepted 3 April 2023

This work was supported by National Social Science Foundation of China (Grant No. 18BGL154).
1. Introduction

Family tourism, especially traveling and touring world heritage sites (WHSs), is recognized as one of the most important sectors of tourism markets (Melvin et al., 2020; Yang and Lau, 2019). WHSs are designated by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and offer cultural and natural activities aimed toward all demographics (Yang and Lau, 2019). At WHSs, family tourists experience various emotional responses through a cognitive appraise process (Lee and Lee, 2021). Emotions are described as states of intense feelings associated with a specific referent that instigates specific response behaviors (Dube and Menon, 2000). Family tourists at WHSs demonstrate strong emotions through an interpersonal authentic experience, such as sharing knowledge of the past or, interacting with family members and local people. Such emotions also stem from intrapersonal experiences, such as engaging with the cultural heritage of their ancestors (Chen et al., 2022; Fu, 2019). More importantly, these emotional experiences encourage tourists visit WHSs, become loyal customers and stimulate the word of mouth (WOM) effect (Manthiou et al., 2017).

Despite the importance of family tourists’ emotional responses, which provides critical clues for the marketing and design of WHSs family tourism experiences, few studies have examined the formation mechanism of emotional responses. The current study aims to explain such a process by using cognitive appraisal theory (CAT) as a theoretical framework (Lazarus, 1991). In CAT, goal appraisal, which includes goal congruence and goal relevance, were deemed as fundamental antecedents of emotion elicitation (Skavronskaia et al., 2017). Goal relevance refers to the importance of an individual’s given situation, while goal congruence refers to the evaluation of the discrepancy of whether the goal is consistent with the situation (Bagozzi et al., 1999). In general, individuals generate emotional responses due to different perceptions on goal appraisal dimensions. Thus, stimulus, goal appraisals and emotional responses were assumed to be structurally interrelated in CAT (Choi and Choi, 2019; Ma et al., 2013; Skavronskaia et al., 2017).

Although CAT was useful in explaining why people feel different emotions (Bagozzi et al., 1999), tourism scholars suggested that the CAT could be extended by considering critical and specific factors to explain emotional elicitation (Cai et al., 2018; Choi and Choi, 2019; Manthiou et al., 2017). In WHSs destinations, by appraising stimuli in relation to people’s goals and motives (i.e. intrapersonal authenticity and interpersonal authenticity) (Chen et al., 2022; Fu, 2019; Huang et al., 2023), specific emotional responses (i.e. emotional experience, cohesion and storytelling behavior) (Chen et al., 2022; Fu, 2019; Wang et al., 2023) could be evoked by processing different cognitive appraisals (i.e. goal relevance and goal congruence) (Backer and King, 2016; Lehto et al., 2012) and the co-creation process among family members (i.e. interpersonal interaction) (Yi and Gong, 2013; Xie et al., 2022).
In this sense, this study contributes to family tourism and WHSs literature by considering critical aspects such as family tourists’ motivational factors, the co-creation process and response outcomes, which are neglected in previous CAT research. Specifically, first, as the most significant motive for a family tourist at WHSs is seeking experience with high existential authenticity (Wang, 1999), existential authenticity was inserted and examined as a motivational factor within CAT (Fu, 2019). Second, as the context of historical and authentic elements in heritage tourism provides tourists with rich material to make up stories based on their own interpretations, and triggered storytelling spreads stories to others as an effective form of WOM behavior, constructs such as emotional experience, storytelling behavior and family cohesion were identified as emotional response factors (Hsu et al., 2009; Manthiou et al., 2017; Yang and Lau, 2019). Third, due to the fact that family tourists are immersed in a “bubble” formed by a family, family tourists are believed to be in a “short-lived society” and demonstrate more behavioral interaction with frequent interpersonal interactions (Lin et al., 2019). Thus, interpersonal interaction should be examined as a moderator representing family co-creation processes (Yi and Gong, 2013).

While prior studies have revealed that family tourists are likely to have emotional, experiential and high-quality tourism experiences (Backer and King, 2016; Chen et al., 2022; Hu et al., 2022), how family tourists’ emotional responses are formed at WHSs is not yet sufficiently understood (Chen et al., 2022). By investigating emotional responses with its antecedents and moderating relationships, the study contributes to literature by extending CAT into the context of family tourism at WHSs, which theoretically adds to the existing knowledge of family tourism, and practically provides managerial and marketing implications for WHSs tourism practitioners. The specific research goals of this study are as follows:

- to develop a theoretical framework which provides a comprehensive understanding of family tourists’ emotional responses formation process;
- to examine the role of existential authenticity that triggers cognitive appraisals;
- to examine emotional responses generated by cognitive appraisals; and
- to examine the moderating role of family interpersonal interaction.

2. Literature review

2.1 Existential authenticity and goal appraisal

Authenticity experience is a core element in tourism experience and motivation (Chen et al., 2022). Conventional literature has revealed three types of authenticity, namely, objective authenticity (the authenticity in tourism attractions, discovered by tourists), constructive authenticity (authenticity in tourists’ participation and subjective judgments on objective attractions) (Cohen, 1979) and existential authenticity (i.e. authenticity that tourists perceive during the process of self-perception in travel) (Wang, 1999). While objective and constructive authenticity focus on tourism attractions, existential authenticity is more based on tourists, which is closer to heritage tourists in the current study. More importantly, the tourism experience of existential authenticity is more likely to be found in tourism environments that allow for richer experiential encounters with the self (e.g. seeking the meaning of oneself; existential development) (Fu, 2019). In this sense, heritage tourism could serve as an environment to provide the opportunities of self-discovery (e.g. tourists can have moments of spiritual awareness/a sense of connection with the past) (Wang, 1999).

Additionally, studies revealed that existential authenticity in heritage tourism can be further divided into intrapersonal authenticity and interpersonal authenticity (Chen et al., 2022; Fu, 2019; Wang, 1999). Intrapersonal authenticity is related to connection with the self (e.g. a
sense of meaning through new knowledge about heritage sites and a projection of self in
the world of heritage and destination) (Wang, 1999). The cultural environment at WHSs is
believed to reflect one’s interest, culture and heritage, and therefore, allowing the
“intrapersonal authentic self” to take form (Shepherd, 2015). On the other hand, interperson authenticity is related to the connection with others (e.g. other family
members, local people and other travelers) (Fu, 2019). Therefore, interpersonal authenticity
provides family members an opportunity to achieve a sense of authentic togetherness,
experiencing a natural, emotional bond and intimacy (Wang, 1999).

Studies revealed that heritage tourists achieve goals of relevance and congruence through
existential authenticity because they are actively seeking authenticity (Choi and Choi, 2019).
Goals are abstract benefits sought by individuals through the characteristics of a product
that fulfill these goals (Huffman and Houston, 1993). Therefore, in the context of heritage
tourism destination, such as WHSs, goal appraisal refers to the evaluation of the
discrepancy of whether the expected characteristics of tourism destination (e.g. location, image and reputation) is consistent with real situations in WHS tourism destinations (Bagozzi et al., 1999; Huffman and Houston, 1993). Additionally, tourists’ interests are
related to authenticity, and their goal is seeking an experience with high existentialism
(Wang, 1999). Thus, when tourists feel they are fully free to pursue this interest (i.e.
intrapersonal authenticity), or when they are connected to other people (i.e. interpersonal
authenticity) (Wang, 1999), they are likely to feel that the experience of visiting this place is
important (i.e. goal relevance) and matches its reputation and image (i.e. goal congruence)
(Choi and Choi, 2019).

Based on the above discussion, the following hypotheses were developed:

\[ H1. \] Intrapersonal authenticity positively influences goal appraisal.

\[ H2. \] Interpersonal authenticity positively influences goal appraisal.

2.2 Goal appraisal and emotional experience

Emotional experience was defined as an “affective response to one’s perceptions of a
series of attributes that composes a product or service performance” (p. 288) (Dube and
Menon, 2000). Evidence has revealed a causal relationship between cognitive appraisals
and emotions (Ma et al., 2013). The key factor in the production of emotions is the
evaluation of the results produced after comparing the actual state with the desired state
(Lazarus, 1991; Ma et al., 2013). In the context of heritage tourism, family tourists have the
motivation to seek authenticity (Fu, 2019; Wang, 1999). Hence, tourists have emotional
experiences when tourism events and changes are consistent (i.e. goal congruence) with
and relevant (i.e. goal relevance) to motive and goals (i.e. seeking authenticity) (Lazarus,
1991; Ma et al., 2013).

Based on above discussion, the following hypothesis was developed:

\[ H3. \] Goal appraisal positively influences emotional experience.

2.3 Emotional experience, storytelling behavior and family cohesion

Storytelling behavior is seen as a WOM communication in the form of stories (Hsu et al.,
2009). However, more than spread message, tourists tell stories to others by including own
explanations of their photographs with strong emotions (Hsu et al., 2009). Tourists craft
stories based on these emotions when they are moved by emotion (Han and Jeong, 2012).
Studies have also identified emotional experience outcome as WOM behaviors, storytelling
or advocacy behaviors (Manthiou et al., 2017). For instance, Manthiou et al. (2017)
empirically verified that cruise tourists’ emotions evoke storytelling behaviors. Moreover, a
recent study using the experimental method by Su et al. (2020), have identified that an emotional response generates storytelling intentions.

Another outcome produced by emotional experiences in family tourism is cohesion (Lee and Lee, 2021). Family cohesion is characterized as emotional bonding in a family (Lehto et al., 2012). In a family, such bonding comes from the emotional links formed by affection, support, helpfulness and caring (Lehto et al., 2012). In this sense, family cohesion could be strengthened by emotional experiences from the interaction with tourism destinations and family members during the trip (Backer and King, 2016; Lehto et al., 2012).

Prior studies have identified the causal relationships between emotional experience and its outcomes such as storytelling and family cohesion (Chen et al., 2022; Fu, 2019). The heritage context provides the opportunity for family members to achieve a study goal (e.g. learning historic knowledge), take care of each other and enhance perception of mutual belonging (Backer and King, 2016). Therefore, the emotional experiences as emotional stimulus would help family get a sense of family unity (Lehto et al., 2012).

Thus, the following hypotheses were developed:

- **H4.** Emotional experience positively influences storytelling.
- **H5.** Emotional experience positively influences family cohesion.

### 2.4 Family interpersonal interaction

Studies have revealed that family interpersonal interaction is supposed to have an influence on tourists’ cognitive appraisals (Chen et al., 2022). As tourists with higher interpersonal interactions are more likely to have a higher degree of information sharing and caring behaviors (i.e. co-creation) (Yi and Gong, 2013), these tourists are more likely to feel high degree of existential authenticity (i.e. both authenticity from attraction authenticity from other people) which further induces a high level of goal appraisal at tourism destinations (Fu, 2019; Wang, 1999). Thus, interpersonal interaction would alter and moderates the influences from existential authenticity (i.e. intrapersonal authenticity and interpersonal authenticity) on goal appraisal. Overall, family interpersonal interaction is supposed to play a moderating role when the tourists evaluate their goal of travel.

Based on the above discussion, the following hypotheses were developed:

- **H6a.** Family interpersonal interaction moderates the relationship between intrapersonal authenticity and goal appraisal.
- **H6b.** Family interpersonal interaction moderates the relationship between interpersonal authenticity and goal appraisal (Figure 1).

### 3. Methods

#### 3.1 Research design

The survey was conducted online from July 4 to August 8, 2022 of the subjects who had travel experience to Pingyao Ancient City within the past 6 months using Sojump Survey Company. The Pingyao Ancient City was chosen due to it being a typical and famous UNESCO WHS in China with its unique architecture style of the Ming and Qing Dynasties of China and its traditional lifestyle (UNESCO, 2023; Meng and Cui, 2020). The participants first signed up to be a member of a panel and surveys were distributed to them via a personal dashboard. If a survey met a criterion or seemed like a good fit for the participants based on their past answers (e.g. the potential respondents who had previously answered questionnaires relating to heritage/family tourism) or their panel type, the survey link appeared and they completed the survey if they wished. Moreover, the IP address was controlled to submit their questionnaire only once.
To select qualified subjects for the study, a screening question, “Have you had a family tourism with the past 6 months” was first asked. Additionally, the descriptions of family tourism and types of tourism activities in Pingyao were also provided. In the current study, family tourism was defined as a leisure travel undertaken by family members consisting of at least one child and one adult, including parent, legal guardian or caregiver (Melvin et al., 2020). Individuals who answered “yes” and who had at least participated in three tourism activities qualified for the following questions. Finally, those under 18 were also excluded from the survey.

In total, 600 surveys were distributed and 380 of them were completed, yielding a response rate of 63.3%. After deleting outliers and incomplete questionnaires, 347 usable responses were included into the final analysis. The asymmetry and kurtosis values are acceptable for a normal distribution (between \( \pm 2 \) and 2) (George and Mallery, 2020). Moreover, the normality of the data were also ensured by checking the Z-skeewness values did not exceed \( \pm 2.58 \) or \( \pm 1.96 \) (Hair et al., 2010). Additionally, common method variance issues were avoided by using both one-factor test (i.e. a single factor accounted for around 38% of the total variance which is less than the threshold of 50%) (Podsakoff and Organ, 1986) and marker variable technique (i.e. no significant bias is assessed through confirmatory factor analysis [CFA] with primary study variables and a marker variable which is measured by all study items including its own measure) (Kock et al., 2021).

3.2 Measures

The questionnaire was developed with three sections. The first section includes descriptions of family tourism and two screening questions (i.e. Are you 18 years old? Have you traveled with your family members within the past 6 months?). The second section includes the items to measure the constructs in the proposed model (Table 1). The third section includes

![Figure 1: Research framework](image-url)
demographic questions such as gender, age, marriage status, education level and family income. By using a back-to-back translation method, the questionnaire was finalized. Moreover, a face validity of the questionnaire was ensured through a pre-test and reviewed by tourism academics and professionals. Family interpersonal interaction and emotional experience were evaluated using a seven-point semantic differential scale, while other measurement items were evaluated on a seven-point scale from 1 (strongly disagree) to 7 (strongly agree).

3.3 Sample profile

Among 347 respondents, 51.3% (n = 178) were male and 48.7% (n = 169) were female. In total, 63.2% (n = 219) were married, and 36.8% (n = 128) were single; 7.4% (n = 26) were under 20 years old, 36.3% (n = 126) were from 21 to 25 years old; 29.7% (n = 103) were
from 26 to 30 years old; 16.4% \((n = 57)\) were older than 31 years and 10.0% \((n = 35)\) were older than 40 years. Regarding education level, 29.6% \((n = 103)\) had graduated high school, 43.2% \((n = 150)\) had a bachelor/master degree and 27.2% \((n = 94)\) had post-degree. As for family income, 18.7% \((n = 65)\) indicated their annual income was below 3,000 Chinese Yuan, 18.7% \((n = 65)\) made between 3001 and 6000 Chinese Yuan, 29.6% \((n = 103)\) made between 6,001 and 9,000 Chinese Yuan, 16.1% \((n = 56)\) made between 9001 and 12,000 Chinese Yuan and 16.7% \((n = 58)\) made more than 12,000 Chinese Yuan.

4. Results

4.1 Confirmatory factor analysis

CFA was used to evaluate the measurement model with maximum likelihood estimation. The study result revealed that \(\chi^2 = 469.002\), degree of freedom \((df) = 349\), \(p < 0.001\), \(\chi^2/df = 1.34\), root mean square error of approximation (RMSEA) = 0.037, comparative fit index (CFI) = 0.98, incremental fit index (IFI) = 0.98, Tucker-Lewis index (TLI) = 0.98, standardized root mean square residual (SRMR) = 0.055 and \(p\) of close fit (PCLOSE) > 0.05. Such results were acceptable for the data fit. Moreover, measurement items were also significantly loaded to latent variable \((p < 0.001)\) (Table 1). The heterotrait–monotrait ratios were below 0.80 (Hu et al., 2022). The reliability of each construct ranged from 0.79 to 0.95, which demonstrated relatively high reliability compared to the suggested cut-off point of 0.70 (Nunnally and Bernstein, 1994). Moreover, internal consistency was supported since values of composite reliability (CR) (ranging from 0.73 to 0.93) were greater than a threshold of 0.60 (Bagozzi and Yi, 1988). Discriminant validity was evident by using the values of average variance extracted (AVE) (ranging from 0.57 to 0.66), which were higher than the suggested 0.50 (Fornell and Larcker, 1981). Finally, discriminant validity was also supported by the fact that the AVE values were higher than the square of correlations between a pair of constructs (Table 2) (Fornell and Larcker, 1981).

4.2 Structural equation modeling

The study results from SEM revealed that the research model had a satisfactory fit to the data \((\chi^2 = 475.32, df = 244, p < 0.001, \chi^2/df = 1.948, RMSEA = 0.062, CFI = 0.96, IFI = 0.96, TLI = 0.95, SRMR = 0.066, PCLOSE > 0.05)\) (Hair et al., 2010). In addition, all causal relationships were significant \((H1–H5)\) (Figure 2 and Table 3). Both dimensions of existential authenticity have positive and significant influences on goal appraisal \((\beta_{\text{Intra.}}\rightarrow\text{GA} = 0.20; p < 0.05; \beta_{\text{Inter.}}\rightarrow\text{GA} = 0.71; p < 0.001)\). Thus, \(H1\) and \(H2\) were supported. Further, goal appraisal had a positive and significant influence on emotional experience \((\beta_{\text{GA}}\rightarrow\text{EE} = 0.78; p < 0.001)\). Therefore, \(H3\) was supported. Finally, emotional experience positively generated positive storytelling behavior \((\beta_{\text{EE}}\rightarrow\text{ST} = 0.35; p < 0.001)\) and family cohesion behavior \((\beta_{\text{EE}}\rightarrow\text{FC} = 0.62; p < 0.001)\). Thus, \(H4\) and \(H5\) were supported (Table 4).

4.3 Measurement-invariance model

By using K-means cluster analysis, the family interpersonal interaction variable was divided into low \((n = 163)\) and high groups \((n = 184)\). Then, based on covariance, method of chi-square comparison was used to confirm measurement invariance. The non-restricted model was compared with the full-metric invariant model to confirm differences between the measurement structures. As a result, Chi-square difference indicated no significant differences in family interpersonal interaction \((\Delta\chi^2(21) = 13.641, p > 0.05)\). Therefore, full-metric invariances for both groups are supported. To further test the moderating effect of family interpersonal interaction, Chi-square difference and critical ratio difference test was used in AMOS. The study results indicated that the baseline model had a good fit to the data \((\chi^2 = 754.51, df = 488, \chi^2/df = 1.54; \text{RMSEA} = 0.047, \text{CFI} = 0.94, \text{IFI} = 0.95, \text{TLI} = 0.94, \text{SRMR} = 0.052, \text{PCLOSE > 0.05})\). The baseline models were then compared to nested models using a Chi-square difference test. The results of the structural invariance test
showed that the path from intrapersonal authenticity to goal appraisal was significantly different ($\Delta \chi^2(1) = 3.53, p < 0.05$). Therefore, $H6a$ was supported. Similarly, the path from interpersonal authenticity to goal appraisal was also significantly different ($\Delta \chi^2(1) = 5.36, p < 0.05$). Thus, $H6b$ was supported (Figure 3 and Table 5).

5. Discussion and conclusions

5.1 Conclusions

By extending CAT as a holistic theoretical framework, the current study advances literature by testing a model linking motivational, co-creation, cognitive and emotional response factors to explain the mechanism of emotional responses which further contributes to the management of family tourism at WHSs. Previous studies on family tourism literature provided limited understanding about this issue (Ma et al., 2013; Lee and Lee, 2021). Thus, this study proposes that family tourists at heritage destinations judge congruence and relevance based
Figure 2  Results of the structural model estimation ($N = 347$)

Notes: A structural model that includes intrapersonal and interpersonal authenticity as critical antecedents of emotional responses through goal appraisals

Source: Figure by authors

Table 3  Results of the confirmatory factor analysis

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Intra.</th>
<th>Inter.</th>
<th>FII</th>
<th>GR</th>
<th>GC</th>
<th>EE</th>
<th>ST</th>
<th>FC</th>
<th>AVE</th>
<th>C.R.</th>
<th>Mean</th>
<th>S.D.</th>
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<tr>
<td>Intra.</td>
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<td>Inter.</td>
<td>0.58$^a$ (0.34)$^b$</td>
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<td>FII</td>
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<td>GR</td>
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<tr>
<td>GC</td>
<td>0.33 (0.10)</td>
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<td>0.28 (0.08)</td>
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<td>EE</td>
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<td>FC</td>
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Notes: Intra. = Intrapersonal authenticity; Inter. = Interpersonal authenticity; FII = Family interpersonal interaction; GR = Goal relevance; GC = Goal congruence; EE = Emotional experience; ST = Storytelling behavior; FC = Family cohesion; AVE = Average variance extracted; C.R. = Composite reliability; Model measurement fit: $\chi^2 = 469.002$, $df = 349$, $p < 0.001$, $\chi^2/df = 1.34$, RMSEA = 0.037, CFI = 0.98, IFI = 0.98, TLI = 0.98. $^a$Correlations between constructs; $^b$Squared correlation

Source: Table by authors

Table 4  Results of the structural equation modeling

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Paths</th>
<th>Coefficients</th>
<th>t-values</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Intrapersonal authenticity $\rightarrow$ Goal appraisal</td>
<td>0.20</td>
<td>2.18$^*$</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Interpersonal authenticity $\rightarrow$ Goal appraisal</td>
<td>0.71</td>
<td>4.07**</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>Goal appraisal $\rightarrow$ Emotional experience</td>
<td>0.78</td>
<td>4.55**</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>Emotional experience $\rightarrow$ Storytelling behavior</td>
<td>0.35</td>
<td>6.69**</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>Emotional experience $\rightarrow$ Family cohesion</td>
<td>0.62</td>
<td>11.29**</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Variance explained: $R^2$ (goal appraisal) = 0.48, $R^2$ (emotional experience) = 0.26, $R^2$ (storytelling behavior) = 0.13, $R^2$ (family cohesion) = 0.29

Notes: Goodness-of-fit statistics: $\chi^2 = 475.32$, $df = 244$, $p < 0.001$, $\chi^2/df = 1.948$, RMSEA = 0.062, CFI = 0.96, IFI = 0.96, TLI = 0.95, $^*p < 0.05$, $^{**}p < 0.001$
on the degree of both intrapersonal authenticity and interpersonal authenticity, moderated by familial interpersonal interaction, and then generating an emotional experience, which further stimulates behaviors such as storytelling and cohesion (Manthiou et al., 2017).

5.2 Discussion
The present study addresses the search gap in the prevailing literature on the formation of the process of family tourists’ emotional responses at WHSs. The study results from a structural model by the survey data of 347 respondents suggesting the $H1$ (intrapersonal authenticity $\rightarrow$ goal appraisal), $H2$ (interpersonal authenticity $\rightarrow$ goal appraisal), $H3$ (goal appraisal $\rightarrow$ emotional experience), $H4$ (emotional experience $\rightarrow$ storytelling behavior) and $H5$ (emotional experience $\rightarrow$ storytelling behavior) were supported. More specifically, intrapersonal authenticity has a much weaker influence (almost three times weaker) than interpersonal authenticity on goal appraisal ($\beta_{\text{Intra.} \rightarrow \text{GA}} = 0.20; \ p < 0.05$; $\beta_{\text{Inter.} \rightarrow \text{GA}} = 0.71; \ p < 0.001$). Such results are consistent with Fu’s (2019) study of heritage tourists, which shows that interpersonal authenticity is a more critical and influential factor than intrapersonal authenticity on behavioral intention of destination loyalty. Moreover, the study...
results also support the idea that emotional experiences have significant influence on family cohesion ($\beta_{EE\rightarrow FC} = 0.62; p < 0.01$) and storytelling behavior ($\beta_{EE\rightarrow ST} = 0.35; p < 0.01$). Such results were in line with previous studies (Su et al., 2020; Lee and Lee, 2021). While almost no prior study has simultaneously examined and compared storytelling behavior and cohesion as outcomes of cognitive appraisals, our study has demonstrated that family tourists benefit from family cohesion as a more important outcome than storytelling behavior. Additionally, the study results indicated mixed results of a moderating effect through interpersonal interaction. The higher degree of interpersonal interaction helps develop intrapersonal authenticity (H6a), but it also hinders the formation of interpersonal authenticity (H6b). Such negative influences of interpersonal interaction are also found in some other tourism-related contexts (e.g. air B&B) (Cui and Meng, 2021).

5.3 Theoretical implications

From theoretical perspectives, the current study first overcomes the limitations of previous studies which seldom considered all possible contextual variables in family tourists at WHSs (Bagozzi et al., 1999; Choi and Choi, 2019). By selecting goal appraisal as a cognitive factor, existential authenticity as a motivational factor, interpersonal interaction as a co-creation factor and cohesion and storytelling behavior as an emotional response factor, our study provides a more holistic and accurate understanding of emotional responses within a context of heritage and family tourism.

Second, the inclusion of existential authenticity enhances our understanding of family tourists’ motivational processes in generating emotional responses at WHSs. Unlike general tourists, researchers know that family tourists have dual motivation to both contact other people/things and cultural elements in heritage destination. Moreover, our study is in line with previous studies that have revealed that family tourists in different family tourism contexts (e.g. festival tourism) also have more motives relating to pursuing “relationships” (Jepson et al., 2019). Consistent with prior studies, researchers should bear in mind that seeking authentic relationships may always be the primary motivation of family tourism, no matter the specific tourism context.

Third, specific emotional responses in family tourism at WHSs were identified as emotional experience, storytelling behavior and cohesion. Most previous studies either missed to examine the outcome of appraisal or focused on simple constructs such as WOM and behavioral intention (Choi and Choi, 2019; Ma et al., 2013). Theoretical scholars should be aware that family tourists have more active (e.g. storytelling behavior) and beneficial (e.g. cohesion) emotional responses than general tourists. Future researchers should strive to discover more accurate and appropriate tourist behaviors through experiential economy.

Fourth, the interpersonal interaction has been additionally demonstrated a significant moderator. However, this moderating effect might be a “double-edged sword” which has both positive and negative effects. This study is consistent with previous research that the degree of family interpersonal interaction may help develop intrapersonal authenticity but meanwhile may also hinder the formation of interpersonal authenticity (Cui and Meng, 2021). The study results implied that the role of family in experience is more complicated than we thought. Family, as a group, can provide support (e.g. family cohesion) to its members, but may also cause conflict. Theoretical scholars should understand the complexity of the family role in tourism and further explore the roles of other family characteristics.

5.4 Practical implications

From practical perspectives to the tourism industry, clarifying the antecedents and dimensions of emotional responses provide a blueprint of family tourists at WHSs for DMOs. As suggested by Lazarus (1991), the appraisal process, which involves the interaction
between events and evaluators, is interactive in nature, and destination managers should seek to provide various interactive opportunities to achieve existential authenticity. Practitioners at WHSs should be aware that efforts should be made to better satisfy the needs of interpersonal authenticity in relationship improvement (e.g. designing host–guest/parent–child interactive activities, creating collective memories). Tourism activities and attractions at WHSs should be designed as opportunities for family tourists to seek high-quality relationships with others (e.g. family members, local people and other travelers) more than to seek their “true self”.

Second, destination practitioners should be aware that the role of emotional experience is more related to enhancing family cohesion specifically in a family tourism form. Thus, the design of evoking an emotional experience should be more “family emotion centered” rather than “individual centered.” The family tourism programs should aim at designing goal-directed tasks with active participation and intense role play. Further, it is also imperative for managers to examine stories about heritage destinations at the end of trips. To encourage and inspire tourists to have sources to tell “good stories” to others, destination marketers should actively cooperate with TV series for product placement strategies. By using social media effectively, tourists can forward these stories to gain a stronger power of communication. Meanwhile, activities such as “a good storyteller competition” or “stories about heritage and people” could also be developed to increase the quality of stories. Then, marketers should use the method of visualization and interpretation so that tourists can easily use them in storytelling and quickly spread them to online review websites/social media.

Third, as family interpersonal interaction has a mixed moderating role that significantly strengthens influences of intrapersonal authenticity and reduces influences of interpersonal authenticity to goal appraisals, WHS managers should understand that highlighting the cultural/historic value in heritage tourism alone is not enough to create memorable experiences for a family. Creating a “family-like environment” would help tourists find their “true self”. As interpersonal interaction may block the effects from interpersonal authenticity on goal appraisal (e.g. increasing the possibility of family conflicts), keeping family interpersonal interactions at a moderate level would help tourists experience strong emotions. Tourism activities that can create a “liminal space” (e.g. air B&B, or coffeeshop) (Meng and Cui, 2020; Sang and Huang, 2022) or “immersive experience” (e.g. handicraft DIY, watching an art performance, finding the treasure by using mixed reality technology) (Lee and Lee, 2021) might be good marketing strategies for tourists to have their own space even when traveling with family.

5.5 Limitations

Several limitations could be addressed by future research. First, the self-reported questionnaires may be subject to omitting due to cognitive bias and memory errors. Second, COVID-19 has potential influences especially on family tourists’ perception on variables forming emotional experiences and therefore, more studies should be carried out to examine potential relationships of family tourism at WHSs. Third, the survey site is limited to one UNESCO world heritage destination, Pingyao Ancient City. Future studies could consider the formation of the emotional experience in more types of heritage sites. Fourth, except family interpersonal interaction, some other potential variables which are associated with family tourism (e.g. family conflict and family intimacy) could also be considered in future studies.

References


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