

**Exploring Emotional and Relational
Factors in Tourism from the
Perspectives of Social Comparison and
Attachment Theories:**

*The Influence of Travel Selfies, Influencers, and
Host-Guest Interactions*

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Abstract

This dissertation examines the intersection of attachment theory and social comparison-envy dynamics in the context of tourism through three interconnected studies. The first study, published in the *Journal of Travel & Tourism Marketing*, investigates the impact of tourist selfies on viewers' attitudes towards destinations. Based on social comparison theory, it finds that potential travelers may experience upward comparison when viewing these photos, leading to body image concerns and two opposing reactions: benign envy and malicious envy. Travelers concerned with self-presentation are more likely to be influenced, and destinations that positively highlight body image foster more favorable attitudes.

The second study, also accepted by the *Journal of Travel & Tourism Marketing*, explores the role of travel influencers as attachment figures and their influence on viewers' travel desires. Using a mixed-method design, the research identifies the attributes that make influencers attachment figures and shows that these dimensions promote upward comparison and benign envy while inhibiting malicious envy. Trust and security established by influencers significantly enhance destination and hotel promotion efforts.

The third study, to be submitted to the *International Journal of Contemporary Hospitality Management*, analyzes the impact of host-guest interactions at Bed and Breakfast (B&B) establishments. By examining online consumer reviews, it reveals that hosts often evolve into significant attachment figures, providing a "secure base" and "safe haven" for guests. These interactions enhance guest experiences, foster trust, and influence positive reflections and intentions to revisit, highlighting their importance in sustainable travel. Together, these studies demonstrate the crucial role of emotional and relational factors in shaping travel experiences and attitudes, offering valuable insights for enhancing travel destination promotion and guest satisfaction.

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Introduction

The influence of social media on contemporary consumer behavior has become increasingly significant. On social media platforms, individuals present themselves, observe others, and establish emotional connections, embedding these practices into their daily lives. This pervasive presence of social media has profoundly affected how ordinary users perceive themselves, shape their desires, and make consumption choices (Kim & Tussyadiah, 2013; Taylor, 2020; Lyu, 2016). Recent academic research has increasingly turned its attention to the commercial implications of social media, with a notable focus on the tourism sector. Due to the intangible nature of tourism consumption, consumers' decisions are heavily influenced by the experiences shared by previous travelers (O'Connor, 2010; Yang et al., 2016). For many tourists, sharing visually appealing photos and captivating travel experiences on social media serves not only to manage their personal image and receive commendation from others but also to preserve and revisit their treasured travel memories through text and images (Taylor, 2020). This dynamic illustrates the powerful role social media plays in shaping consumer behavior and highlights its critical influence on the tourism industry.

However, as social media functionalities continue to evolve and user bases expand, several concerning drawbacks have emerged. These include a prevalent tendency among social media users towards positive self-presentation, frequent upward social comparison, excessive activation of consumer desires, self-dissatisfaction, and social anxiety (Corning, Krumm, & Smitham, 2006; Stice, 2002). In particular, previous research has shown that social media facilitates frequent comparisons with individuals perceived as more successful, leading to feelings of envy and reduced self-satisfaction (Kim & Chung, 2023). However, findings have been mixed, revealing two distinct forms of envy: benign and malicious (Van de Ven, 2016). Benign envy is characterized by a desire to improve oneself to achieve a superior status, while malicious envy involves a wish to undermine those who are perceived as superior (Van de Ven, 2016). Studies focusing on tourism consumption behavior have further confirmed that benign envy is associated with an increased willingness to visit desirable destinations, whereas malicious envy is linked to a decreased desire to visit such places (Kim & Chung, 2023; Hajli, et al., 2018). Furthermore, malicious envy has been shown to increase the willingness to visit competing destinations (Kim & Chung, 2023).

Research on dual envy has found that enhancing an individual's sense of control and self-confidence, along with fostering positive, high-quality relationships with those being envied, can activate benign envy rather than malicious envy (Van de Ven et al., 2009). Attachment theory, developed by John Bowlby (1982), suggests that an attachment figure provides feelings of love and support, facilitating a positive self-concept and enhancing a sense of control. Preserving an intimate relationship with an attachment figure can enhance a person's self-confidence and promote creative problem solving (Green &

Campbell, 2000; Melen et al., 2017). When individuals perceive the person they are comparing themselves to as warm, supportive, and encouraging, they are more likely to experience benign envy, which is associated with self-improvement, rather than malicious envy, which is linked to aggression. Attachment theory frames proximity to caring and loving attachment figures as a primary source of genuine self-worth (Mikulincer & Shaver, 2005). Secure attachment helps buffer against self-esteem fluctuations that social comparison can cause (Mikulincer & Shaver, 2005), and alleviate negative emotions (e.g., feelings of inferiority arising from upward comparison). Therefore, the presence of attachment figures may facilitate more positive outcomes from upward social comparisons and inhibit negative effects.

Moreover, according to attachment theory, face-to-face interactions with attachment figures may provide travelers with a variety of beneficial effects. Previous tourism research has also focused on attachment theory and developed the concept of place attachment, but the impact of secure attachment relationships developed through interpersonal interactions on tourists and tourism consumption has not been adequately addressed. Based on prior attachment research, developing effective secure attachment relationships may promote tourists' more active participation in exploring destinations and engaging in various activities. Previous studies on attachment theory have highlighted the dual roles of attachment figures as both a 'safe haven' and a 'secure base' (Mikulincer & Shaver, 2007). A safe haven affords a person comfort when feeling threatened or distressed. Tourists' perceptions of risk are commonly tied to feelings of fear, anxiety, worry, and nervousness (Fuchs et al., 2013; Reichel et al., 2007; Wolff et al., 2019). Tourists may especially need an available, trustworthy person to act as a safe haven, guaranteeing their safety. Additionally, a secure base comes into play when a person yearns to explore their environment; engage in work, play, or other activities; and interact with peers (Bowlby, 1988; Feeney, 2004). Social support is also linked to higher self-efficacy in leisure activities (Orsega-Smith, Payne, & Godbey, 2003; Sasidharan et al., 2006).

Overall, previous tourism research has reported the potential theoretical contributions of social comparison theory, double envy, attachment theory, and attachment figures, and has called attention to these research questions. Specifically, I have identified a range of discrete research topics and conducted three independent studies, each designed based on the theoretical findings of the preceding study. The research topics include the dual envy effect caused by social media comparisons, the potential role of attachment figures, and the influence of interactions with attachment figures on tourists' exploration, among other issues. This independent, multi-phase research design ensures a gradual increase in depth in a specific research direction and is flexible enough to capture newly emerging theoretical gaps. Additionally, this adaptable design can respond to changes in the development trajectory of the tourism industry in recent years and provide practitioners with more practical management advice. In the next section, three studies and the main theoretical contributions are briefly reviewed.

The development of the three research

The first research focuses on the phenomenon of travel selfies. Previous study have found, encouraging tourists to capture and share selfies could serve as an effective marketing strategy to attract potential visitors (Taylor, 2020). However, the popularity of tourist selfies may have a "double-edged sword effect", which may activate viewers' desire to travel on the one hand, and may also make viewers feel less satisfied with themselves after experiencing an upward comparison (Taylor, 2020). Therefore, the first research is grounded in social comparison theory and investigates the impact of travel selfies on potential travelers. We report a series of findings. Potential travelers with a positive self-presentation intention are more likely to engage in upward physical comparisons. If the upward body comparison led to self-image concerns among potential travelers, their perceptions of both benign and malicious envy were enhanced. When self-image concerns were absent, only benign envy perceptions were increased. The effect of envy on destination preference is consistent with previous research. Benign envy has a positive effect on destination attitudes, proving that potential travelers believe a destination contributes to their online image. Malicious envy has a negative effect on the destination, proving that the negative attitude of potential travelers towards the superior object also covers the destination.

These findings suggest that a series of theoretical contributions. Overall, we confirmed that travel motivation tied to presenting an attractive body image. Destination selection partially relies on whether a destination serves as a stage to highlight one's attractiveness through complimentary selfies. Second, we confirmed that visitors' self-presentation intentions promote upward social comparison, reflecting an interest in observing others' images – other people's ideal self-presentation implores individuals to try to keep up. This outcome aligns with research on the normative direction of people's social comparison; that is, people compare themselves with slightly more competent others. Doing so facilitates self-evaluation while inspiring self-improvement. In addition, upward body comparison on social media was found to activate body image concerns and two types of envy. Self-concern mainly modulated the inhibition or activation of malicious envy in our study. As such concern rose, the superior comparison target was subjected to malicious envy – related attacks and put-downs to compensate for the comparator's lower self-evaluation. Malicious envy was suppressed in the absence of self-concern. These results are congruent with assimilation effects. Upward social comparison can be self-enhancing when the comparator sees themselves as belonging to a group of superior people and is thus obliged to defend that group. Our model further helps to explain pervasive self-presentation anxiety and hostility toward more attractive presenters on social media.

Although the first study highlighted the positive role of upward comparison and benign envy in tourism marketing, as well as the potential negative impact of self-concern and

malicious envy on destination marketing, these findings are not sufficient to provide effective recommendations for tourism marketers. Additionally, the triggers of upward comparison and the mechanisms for fostering benign envy while mitigating malicious envy remain unknown. Therefore, based on the findings of study one, we conducted a second study. In Research two, the focus shifted to travel influencers. On one hand, social media influencers have become increasingly influential in contemporary social media marketing (Manthiou et al., 2024). On the other hand, these influencers are adept at creating warm and reciprocal relationship, which has the potential to direct the outcomes of upward comparison and envy towards positive, self-improvement-oriented effects while curbing malicious envy (e.g., Lou & Yuan, 2019; Trivedi & Sama, 2020). To this end, attachment theory was introduced based on social comparison theory. According to attachment theory, individuals who have successfully developed secure attachment relationships are more likely to view themselves in a positive light and approach threatening information with greater resilience (Bowlby, 1982). The second research revealed the significant role of secure attachment relationships in promoting travel consumption.

Specifically, in the second study, we employed a mixed-method approach. Initially, we gathered and analyzed qualitative data. We conducted in-depth interviews to determine whether consumers perceive travel influencers as attachment figures. The results revealed four key dimensions of travel SMIs as online attachment figures: the influencer's sincerity, deservingness, personal attractiveness, and encouragement. In Study 2, we quantitatively assessed that these four dimensions as sub-dimensions of the online attachment figure and found that they effectively facilitated the audience's intention for upward comparisons. Remarkably, audiences generally expressed benign rather than malicious envy after this comparison process.

The second study also suggests a series of theoretical contributions. Our work makes two types of theoretical contributions. The first pertains to the nature of travel SMIs themselves. Research on these influencers suggests that their marketing potential lies in their ability to use charisma to attract audiences with diverse hobbies and personalities. Our second major theoretical contribution comes from taking travel influencers as attachment figures to examine the link between upward comparison and envy. We found that support from an attachment figure promotes prosocial envy (i.e., benign envy) and upward comparison. Evidence from Fraley and Shaver (2000) substantiates this notion in that people with secure attachment styles exhibit greater resilience and adaptive coping mechanisms in the face of adversity compared to people with insecure attachment styles. Correspondingly, support from an attachment figure was shown to inhibit malicious envy among audience members. People with secure attachment exhibit higher self-efficacy and more robust emotional regulation skills. Attachment security helps generate a positive self-concept and enables individuals to accept and incorporate their flaws into a generally coherent and affirmative self-image (Berant & Baumel, 2017).

In the second study, we found that proximity to and secure attachment interactions with attachment figures have positive effects on relational partners. However, the second study primarily focused on social media personalities as distant, symbolic attachment figures and the attachment relationships perceived by potential travelers through online interactions. The impact of face-to-face interactions on providing attachment security for tourists and their travel and exploration experiences has not been sufficiently addressed. Therefore, we conducted the third study, where we found that B&B hosts can serve as attachment figures for tourists at their destinations. This is because host-guest interactions promote a sense of connection and security, fostering a secure attachment relationship (Mikulincer & Shaver, 2012). This study focuses on host-guest interactions in bed and breakfast (B&B) settings and their impact on guest experiences. Through a detailed analysis of consumer reviews, we identified key positive attributes of host behavior and effective interaction modes that influence guest emotions and experiences. Based on attachment theory, we found that hosts, when functioning as secure attachment figures, can enhance guests' sense of security and exploration. Finally, we propose a theoretical model of host-guest interaction. The findings aim to enrich the understanding of B&B experiences and provide practical insights for improving service quality and appeal.

This study proposes a series of theoretical contributions regarding host-guest interactions. We found the interaction between consumers and service providers in the B&B hospitality industries is inherently different. In the commercial relationship of hotel industry, the essence of the relationship between service providers and consumers is instrumental and resource exchange (Price and Arnould, 1999), and emotional participation is limited. Based on a multi-stage analysis of guests' online reviews, we found that host-guest interaction plays an important role in guests' B&B experience and that the essence of high-quality host-guest interaction is the development of secure attachment relationships. Through detailed manual coding, we report four typical attachment figure actions (family-like attachment figure action; friend-like attachment figure action; local attachment figure action and commercial attachment figure action) that hosts can adopt during a guest's three phase of B&B exploration (gaining security; exploration action; attachment integration). They co-create more personalized tourism experiences for guests by including them in family gatherings and local activities (Wu, X., Han, X., & Moon, 2023). B&B hosts play a crucial role by providing a sense of security and acting as both a haven and a safe base. This support helps guests manage stress and enhances their enjoyment. In summary, B&B hosts' varied roles are essential in helping guests navigate and enjoy their journey, adapting to their needs at different stages of exploration.

This series of studies primarily reports several theoretical contributions. Firstly, the significant role of social comparison behaviors triggered by social media in tourism consumption choices is emphasized. Our findings indicate that social comparison initiated by social media is multifaceted, encompassing not only the luxurious consumption experiences previously reported in research but also the body comparison driven by tourists' image attractiveness, which significantly influences the consumption

preferences of potential tourists. In terms of the direction of social comparison, we discovered that tourists tend to engage in upward social comparison. The main reason is that comparing oneself with more superior others not only activates the motivation for self-improvement but also provides reliable reference points for enhancing one's own status.

Secondly, the findings related to envy also constitute a significant theoretical and practical contribution of our series of studies. Firstly, we identified two opposite tendencies of envious emotions, benign envy and malicious envy, which differs from previous envy research that investigated envy as a single dimension. Our series of studies reveal the complexity of envious emotions. In terms of impact on tourism marketing, benign envy has been repeatedly proven to positively promote destination marketing, whereas, conversely, malicious envy has been shown to exert a negative impact on destination marketing. Considering the dual nature of tourists' envious reactions, we investigated the potential influencing factors of both types of envy. Overall, we found that upward comparison promotes benign envy and suppresses malicious envy. Concerns about self-image can both promote benign envy and contribute to the generation of malicious envy. Furthermore, by introducing attachment theory, we reported that the relevant traits of attachment figures, including sincerity, deservingness, attractiveness, and encouragement, positively promote benign envy and inhibit malicious envy. For future research, we call for greater attention to benign envy and malicious envy in tourism studies, and for destination marketers to pay attention to the type of envy experienced by potential tourists.

Lastly, but not least, by introducing attachment theory into tourism research, we identified that both online and face-to-face attachment interactions have a positive impact on the exploration desire and effects of potential tourists and actual tourists. Our main findings include the following: firstly, attachment relationships provide higher emotional resilience, allowing individuals to adopt a positive and optimistic perspective in the face of threatening external information, such as negative emotions caused by upward comparison leading to dissatisfaction with oneself, and experience fewer threats to self-esteem. Secondly, the existence of attachment relationships promotes greater self-confidence and a willingness to face challenges and self-improve. Thirdly, during actual tourism and exploration journeys, attachment figures can provide tangible support, protection, comfort, and can join guests' exploration or activate exploration inspiration to enhance the joy of exploration. Overall, the above content is a brief review of the three studies and their main contributions. The following section contains the full texts of the three studies.

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How do social media tourist images influence destination attitudes? *Effects of social comparison and envy*

Introduction

In recent years, the tourism industry has been labeled the “selfie era” (Mostafanezhad & Norum, 2018; Souza et al., 2015). According to Dinhopl and Gretzel’s definition of travel selfie (2016): tourists emphasize their own images in photos that are intended to be shared with online audiences. Previous studies unanimously indicate that taking and posting travel selfies is primarily driven by the motivations of self-presentation, which involve the self-objectification of body image and strategic editing of physical attractiveness. (Lyu, 2016; Dinhopl & Gretzel, 2016; Lo & McKercher, 2015). There has been a shift in visitors’ focus, with their interest in gazing at and presenting their own bodies surpassing their emphasis on the destination itself. Scholars have confirmed an ‘attraction shading effect’ from tourists’ selfies, where the tourist’s image occupies a significant portion of the photograph compared to the featured attraction (Christou et al., 2020). Furthermore, appealing selfies are believed to influence destination selection of potential travelers, as they portray how a tourist might appear in the future. Encouraging tourists to capture and share selfies could serve as an effective marketing strategy to attract potential visitors (Taylor, 2020).

Since presenting image attractiveness online bring many potential benefits, including perceived higher intellectual and social skills by others (Hamermesh, 2011), tourists tend to post self-related photos and intentionally manipulate these pictures to present an ideal self-image (Kim & Tussyadiah, 2013; Lyu, 2016). Extensive evidence suggests that people are committed to achieving popular online images, even resorting to undergoing cosmetic surgery (Hunt, 2019) and selecting destinations for selfies, using makeup and clothing to enhance the attractiveness of their photos (Chua and Chang, 2016). Other tourists present countless idealized selfies featuring thin, lean/tone, and photoshopped images (Mills et al., 2018). This deliberate display contributes to the internalization of highly attractive yet unrealistically ideal images by the audience. Despite the widespread attention drawn by travel selfies and self-presentation, research on tourists’ body images in selfies remains limited. Existing work has partly discussed these selfies as a form of tourist gaze facilitated by social media (Dinhopl & Gretzel, 2016). Narcissism and envy promote the sharing of these selfies (Taylor, 2020), with positive self-presentation being a key motive for posting them online (Lo & McKercher, 2015; Lyu, 2016).

However, the prevalence of attractive tourist selfies can have a “double-edged sword effect,” which means that the mixed consequences need to be taken into consideration.

Exposure to unrealistic and unnatural attractive selfies frequently, such as the “thin ideal” and “athletic ideal”, can contribute to the perpetuation of idealized beauty standards and body image norms. Consequently, high attractive images are considered as prevalent, desirable, and accessible for regular people (Kim & Chock, 2015; Meier & Gray, 2014; Robinson et al., 2017) and individuals may feel ashamed or inadequate if they do not meet these standards (Kim & Chock, 2015; Meier & Gray, 2014; Tiggemann & Slater, 2013). The popularity of selfies has received criticism in the realm of body image, as it has been linked to increased physical comparison, dissatisfaction, anxiety, and other negative psychological effects (Modica, 2020; Tiggemann et al., 2020). However, the potential negative impact of selfie presentation on travelers remains unclear. When undesirable body image perceptions are triggered, these adverse effects may extend to destination choices and consumption.

Taking into account the significant role of social comparison theory in body image and travel intention research (Hajli et al., 2018; Liu et al., 2019; Sharma et al., 2022), this study introduces the concept of upward body comparison. On one hand, attractive tourist selfies can serve as a source of inspiration, sparking interest and influencing destination choices (i.e., “If they can do it, maybe I can, too”) (Tiggemann & Slater, 2013). On the other hand, if upward social comparisons activate negative self-image perceptions, people may feel disappointed about the prospect of travel and self-presentation, and then blame the cause of low self-esteem, which is other tourists who are more attractive. We focus on a trio of issues to fill knowledge gaps around tourists’ body image. First, we investigate whether, when tourists aspire to present a positive online image through travel, they consider the self image attractiveness as an important aspect of presentation. Second, we explore the impacts of upward body comparison and negative body image perception on destination marketing. Third, we adopt the concept of benign envy and malicious to measure the double-edged sword effects caused by upward body comparison and shifting body image perceptions.

To respond to the calls of previous research and thoroughly investigate these issues, this study developed a theoretical model based on existing literature and proposed a series of hypotheses. Additionally, we designed a quantitative study to test the theoretical model and provide practical recommendations. Overall, we report several key findings. Positive self-presentation intentions motivate individuals to compare themselves with more attractive tourist images. However, such upward body comparison leads to an increased perception of body image concerns, which in turn has a double-edged effect. Specifically, body image concerns significantly enhance the perception of both benign envy and malicious envy. Benign envy has a positive impact on attitudes towards the destination, as potential travelers believe that the destination can contribute to their online image. Conversely, malicious envy has a negative impact on the destination, indicating that the negative attitudes of potential travelers towards superior objects also extend to the destination. These findings aim to enrich the theoretical understanding of social comparison and envy in the context of tourism and provide practical insights for destination marketing and management.

Theoretical background

Travelers' selfie presentation on social media

These deliberately selected travel selfies constitute a form of self-presentation in the tourism literature (Lyu, 2016). According to Goffman (1959), strategic self-presentation (i.e., impression management) is a purposeful self-modification process. Lyu (2016) pointed out that such self-presentation arises from tourists' objectification of their own bodies. When people internalize an external ideal image, they see their own appearance as an object that others will monitor. These selfies capture tourists' self-gaze. That is, travelers see themselves through others' eyes (Dinhopl & Gretzel, 2016). Individuals in turn edit their true image to approximate their ideal image.

Strategic self-presentation is associated with outcomes such as improved personal well-being, social competence, self-esteem and self-efficacy, and self-identity development (e.g., Gentile et al., 2012; Kim & Fesenmaier, 2017; Lee & Oh, 2017). Some people travel to obtain these psychological benefits, thus preferring destinations that enhance their self-image. Social media self-presentation reflects a shift from text-based narration to visual description. Modern media is image-oriented, with body and personal image often being core components. An attractive body image is a prime factor in travelers' positive self-presentation. Yet little is known about tourists' psychological characteristics tied to body image. Travelers driven by self-presentation are nonetheless a valuable segment: they typically choose destinations suitable for self-presentation, and their post-trip photos guide others' destination selection. This cycle leads places to become less pertinent than tourists' self-gaze (Christou et al., 2020; Lyu, 2016; Mostafanezhad & Norum, 2018; Picard & Di Giovane, 2014).

The act of capturing travel selfies directs the audience's attention towards body image, transforming both the body and destination into subjects of observation. The significance of body image is further magnified in the realm of online self-presentation. Within the context of social media's virtual interpersonal interactions, body image replaces the physical presence of a "unique body" and aids users in establishing their personal identity. The existence of the body plays a crucial role in the formation of individual identity. Our bodies serve as a medium for expressing personal or societal unconscious processes, encompassing emotions, cultural and social attitudes, aspirations, values, and beliefs (Rolef Ben-Shahar, 2015). Nonetheless, offline self-presentation relies on physical performance, which Mauss (1973) terms as body technique. This repetitive, learned, and unchallenged nature of performance, known as "performativity," is claimed to shape one's identity through repeated bodily experiences (Larsen, 2005). While face-to-face self-presentation is dynamic and embodied, online self-presentation is static and revolves around verbal descriptions or photographic depictions of one's appearance (Toma & Hancock, 2010). Travel selfies enable tourists to showcase their bodies, particularly their

faces, enabling the audience to form a relatively comprehensive perception of their identity.

Social comparison theory

We adopt social comparison theory (Festinger, 1954) as the theoretical framework for our study. The theory posits that individuals are driven to seek information about others in order to evaluate their own position within a social group (Myers & Crowther, 2009). Social comparison theory encompasses two types of comparisons: upward social comparison and downward social comparison. The former occurs when individuals compare themselves to others perceived as superior, while the latter involves comparing oneself to those considered less successful or inferior. Engaging in these comparisons serves as a basis for self-evaluation and the development of self-concept (Stapel & Koomen, 2001), reducing uncertainty and providing individuals with a sense of meaning (Suls & Wheeler, 2000). Thus, social comparison is a significant psychological process that influences individuals' daily judgments, experiences, and behaviors (Corcoran et al., 2011). It assists individuals in evaluating their own performance (Boissicat et al., 2022), comprehending complex information (Mussweiler & Epstude, 2009), and, importantly, maintaining their self-esteem (Triệu et al., 2021).

Research on body image suggests that social comparison plays a central role in how an attractive body image impacts the audience (Myers & Crowther, 2009). Social comparison theory is widely used in this field. When individuals engage in upward social comparison related to body image, they tend to internalize an idealized image. By comparing themselves to individuals with more attractive bodies, they gain an understanding of what is considered desirable and how they can potentially improve their own appearance. However, many people, particularly women, often feel unable to match the slim and attractive standards set by models (Tiggemann & Polivy, 2010). This perception can lead to body dissatisfaction, self-objectification, and even contribute to the development of eating disorders (Grabe et al., 2008). We propose that body image concerns arising from upward body comparison, which triggers negative emotions related to dissatisfaction, can result in various consequences. Furthermore, the processes of assimilation and contrast reveal how body image concerns influence the outcomes of social comparison.

Assimilation and contrast effects

Contradictory findings have been reported in social comparison research. One potential explanation for these discrepancies is whether the comparison yields a contrast effect (e.g., “that person is not like me”) or an assimilation effect (e.g., “that person could be similar to me”) (Collins, 1996; Smith, 2000). Specifically, when individuals engage in upward comparisons that result in a contrast effect, it is likely to lead to demoralization by emphasizing the differences between oneself and the upward comparison target. Conversely, upward comparisons that yield an assimilation effect are more likely to be

inspiring, as they underscore the similarities between the individual and the upward comparison target (Lockwood & Kunda, 1997).

In the realm of tourism research, there is also a mixed body of evidence. Hajli et al. (2018) explored the social comparison preferences and envy of potential tourists, reporting positive results that suggest upward social comparison and envy can act as motivators for desire to visit a destination. Liu, Wu, & Li (2019) also found benign envy occurring after upward comparison. While Feng et al. (2021) observed malicious envy triggered by other travelers' luxury hotel consumption. Additionally, Kim and Chung's (2023) investigation on dual envy in relation to travel experiences revealed that the outcome of envy depended on the availability of such experiences. Despite these advances, there are still several theoretical gaps in the understanding of the relationship between social comparison and envy within the domain of tourism research. Further exploration and investigation are needed to bridge these gaps and provide a more comprehensive understanding of this relationship.

We speculate that the different relationship between comparison and envy is determined by whether the contrast effect is caused by the upward social comparison. Because contrast effect, travelers' focus on negative self-conceptions promoted defensive processing of social comparison information. This leads to a different reaction to envy from upward assimilation effect travelers. Self-evaluation is often used as a measure of contrast and assimilation effects (e.g., Vogel et al., 2020). However, the current study did not measure the self-evaluation of potential travelers after experiencing comparison. Self-evaluation acts as a measure of contrast and assimilation effects (e.g., Vogel et al., 2020). The contrast effect applies in cases of reduced self-evaluation. We measure this effect based on body image concerns, a negative perception of the difference between oneself and a superior person. A meta-analysis involving 156 studies found social comparison to be associated with relatively high physical dissatisfaction (Myers & Crowther, 2009). Upward body comparison is presumably likely to lead to the contrast effect, especially if potential visitors sense a gap between themselves and an attractive image and cannot dismiss the discrepancy (i.e., they become dissatisfied with their own body image). Other people may not experience marked body image dissatisfaction after such comparison. We speculate that people without body image concerns will see positive results from comparison.

Two types of envy

Two subtypes of envy, which have received close attention in travel research as of late, exert positive (motivated by benign envy) and negative (motivated by malicious envy) impacts on travel intention. We introduce the notion of envy to determine how body comparison and body image concerns influence tourism consumption. Several body image studies have shown that physical dissatisfaction causes mental distress among men and women and is significantly correlated with low self-esteem and depression (Paxton et al., 2006; Sahlan et al., 2021). The perceived inferiority resulting from upward social comparison results in envy, a social emotion (Van de Ven, 2016) which has been universally recognized as a form of pain: people who see that others are better off may

think “That could have been me” (van de Ven & Zeelenberg, 2015). Envy is pervasive among social media users (Wallace et al., 2017). Although envy of others’ luxurious consumption has garnered interest in the tourism field, envy based on body image comparison is less understood.

Envy triggers a tendency to respond to a self-assessment threat (Van de Ven et al., 2009). Two reactions prevail: raising one’s own status or removing another person from their superior position. Parrott and Smith (1993) argued that envy can produce a desire for what another has (i.e., benign envy) or an expectation that that person will lose their advantage (i.e., malicious envy). Benign envy reflects one’s drive to improve oneself and to work hard to obtain what others have (Van de Ven et al., 2009). Wishing for an envied person to lose what they have embodies malicious envy (Wu & Srite, 2021). This form of envy is typified by negative views of the envied person (Van de Ven et al., 2009) and can inspire undercutting or aggression toward others (Lange & Crusius, 2015; Van de Ven et al., 2015).

Hypothesis development

Relationship between self-presentation and upward body comparison

First, self-presentation enables tourists to compare themselves with others more frequently. As Goffman (1971) suggests, self-presentation heavily relies on understanding the specific context, environment, and anticipated audience. This understanding is crucial for individuals to effectively manage their public image and reduce the uncertainty associated with their self-presentation efforts. According to Festinger (1954), social comparison theory posits that individuals have a fundamental need to evaluate their own opinions and abilities by comparing themselves to others. This need is particularly pronounced in ambiguous or uncertain situations, where individuals seek external benchmarks to establish a sense of certainty about their own standing.

Humans have an inherent need to establish certainty in their world and their position within it (Katz & Kahn, 1978). Ambiguity and uncertainty are typically perceived as unpleasant states, which individuals attempt to manage by seeking out information (Ashford, 1986; Strube and Yost, 1993). Social media platforms, with their vast repositories of user-generated content, serve as a rich source of information for individuals to make judgments about their audience (Walther et al., 2008). Research has shown that evaluations, both internal and external, can influence how individuals portray their public identity and subsequently adopt more effective self-presentation strategies (Stern, 2008). Therefore, the act of self-presentation on social media inherently involves a process of social comparison, as individuals seek to align their public image with perceived norms and expectations.

Second, potential travelers may be more active and consciously choose to compare with more attractive objects. The process of social comparison is not merely a passive response to external stimuli but an active process of acquiring information and knowledge about superior objects, which implies the possibility of self-improvement. Previous studies have highlighted that upward social comparison on social media is an unavoidable and spontaneous process (e.g., Kim and Chock, 2015). However, this process is not solely imposed on individuals by external circumstances; rather, individuals willingly expose themselves to such experiences when they have self-improvement goals (Wood, 1989).

Self-presentation requires external information to guide the desired presentation outcome. The concept of ‘social surveillance’ proposed by Marwick (2012) supports this notion. When users observe content created by others, they develop a perception of what is considered normal, acceptable, or unacceptable within the community. This perception influences their self-presentation strategies, as they adjust or modify their own posts to align with these norms. Consequently, the intention of self-presentation drives people to participate in social comparison more frequently, and at the same time, makes them seek comparison with better targets. The following hypothesis is proposed accordingly:

H1: Self-presentation positively influence on upward body comparison

Relationship between upward body comparison and body image concerns

The relationship between upward body comparison and body image concerns is a significant area of study in psychology, particularly in the context of how individuals perceive and evaluate their physical appearance in relation to societal standards and peer comparisons. Upward body comparison, defined as the act of comparing oneself to others who are perceived as physically superior or more attractive, has been shown to have a direct and often detrimental impact on body image satisfaction. Myers and Crowther’s (2009) meta-analysis underscores the pervasive nature of this issue, highlighting that upward body comparison is not only common but also significantly linked to increased levels of physical dissatisfaction. The meta-analysis, which aggregated data from 156 studies involving 189 effect sizes, demonstrated a consistent positive association between social comparison and heightened dissatisfaction with one’s body. This association is often explained through the contrast effect, where individuals perceive a marked discrepancy between themselves and the attractive, idealized images they encounter. This discrepancy can lead to a reinforcement of negative self-perceptions and a decline in body image satisfaction.

Presnell et al. (2004) and Garner (2002) provide further insight into the multifaceted nature of body dissatisfaction, noting that it encompasses not only negative subjective comments about one’s appearance but also dysfunctional attitudes, negative beliefs, and emotional responses related to weight and body shape. These broader dimensions of body dissatisfaction highlight the complexity of the issue and suggest that the impact of

upward body comparison extends beyond mere aesthetic judgments to affect emotional and psychological well-being. For instance, Spitzer, Henderson, and Zivian (1999) found that a substantial majority of college women expressed dissatisfaction with their bodies, with similar trends observed among adolescent girls who often desire to lose weight (Ricciardelli & McCabe, 2001). The upward body comparison is a widespread phenomenon affecting individuals across different age groups and social contexts. And this phenomenon is particularly prevalent in cultures that place high value on physical appearance and where social media platforms serve as ubiquitous sources of comparison.

Additionally, individuals who already experience existing anxiety or uncertainty about their body image are more likely to engage in upward social comparison, thereby exacerbating their feelings of dissatisfaction (Want, 2009). This feedback loop indicates that upward body comparison can become a self-reinforcing behavior, where dissatisfaction encourages further comparison, leading to a cycle of negative self-evaluation. The psychological consequences of body dissatisfaction are profound and multifaceted. Studies have linked body dissatisfaction to the development of eating disorders, excessive exercise, and risky cosmetic procedures (Corning, Krumm, & Smitham, 2006; Stice, 2002). These outcomes highlight the significant health risks associated with chronic body dissatisfaction and underscore the need for interventions that address the root causes of these behaviors. In summary, upward body comparison positively influences body image concerns by intensifying feelings of dissatisfaction and reinforcing negative self-perceptions. This relationship is shaped by cultural norms, peer comparisons, and the use of social media, all of which contribute to the perpetuation of idealized body standards. The following hypothesis is proposed accordingly:

H2: Upward body comparison positively influences body image concerns.

The Mediating effect of body image concern

Our proposition suggests that the contrast effect, particularly in the context of upward body comparisons, would result in a greater extent of potential travelers generating envy-related responses, whether in benign or malicious forms. The core of this relationship lies in the mediating role of body image concern. When individuals engage in upward body comparisons, they often perceive themselves as unfavorable relative to others who appear more physically attractive or fit. This negative self-perception can have detrimental effects on self-esteem, thereby triggering an increased motivation to defend and enhance self-esteem (Van de Ven, Zeelenberg, and Pieters, 2009).

Previous research in the field of social comparison has extensively explored the impact of negative self-perceptions on self-esteem and subsequent behaviors. For instance, individuals who feel insecure about their body image are more susceptible to envy when confronted with superior comparison targets (Klein et al., 2001; Stapel & Schwinghammer, 2004). These studies have shown that the contrast effect can

significantly amplify the likelihood of experiencing envy, as individuals strive to counteract the perceived threat to their self-worth.

To counteract the potential negative impact of social comparisons on their self-image, individuals may utilize various defensive strategies. These strategies can be broadly categorized into two types: constructive and destructive. Constructive strategies involve efforts to improve one's own performance, such as working harder or adopting healthier habits (Tesser, 1988). Destructive strategies, on the other hand, involve indirect tactics aimed at impeding the subsequent performance of the comparison target, such as sabotaging their performance in a subsequent test or devaluing their attractiveness (Baumeister et al., 1996). Based on this, we anticipate that Self-image concern has a significant mediating effect between upward body comparison and envy. And self-image concern positively influences both benign envy and malicious envy.

H3: Body image concerns positively influence benign envy.

H4: Body image concerns positively influence malicious envy.

H5: Self-image concerns mediated the relationship between upward body comparison and benign envy

H6: Self-image concerns mediated the relationship between upward body comparison and malicious envy

Direct relationship between upward body comparison and envy

When upward body comparisons do not diminish the potential traveler's self-perception of body image, the achievement of others can trigger a shift towards benign envy. In such instances, upward social comparison acts as a motivator, thus explaining why previous research on travel envy has predominantly highlighted the positive impact of upward comparison on benign envy and its influence on destination marketing effects. Wheeler's (1966) research findings propose that individuals do not perceive upward comparison as a threat to their self-esteem; instead, they may perceive it as an opportunity for self-enhancement. In fact, being among the "more successful" can be more enjoyable than being among the "less successful," thus suggesting that upward comparison potentially yields greater self-enhancement benefits compared to downward comparison. While an increasing body of literature indicates that exposure to ultra-thin models often leads to heightened body dissatisfaction among a significant portion of women, there exist studies that have reported either no effect or even a positive effect of exposure to idealized female models on women's self-evaluations (Joshi et al., 2004; Mills et al., 2002). It is plausible that women who place importance on their appearance or actively strive to improve their appearance perceive models as sources of inspiration for self-improvement.

The assimilation effect arises when travelers are inspired by the belief that they can attain similar status or achievements as the comparison target (Suls et al., 2002). Lockwood and

Kunda (1997) demonstrated that exposure to upward targets enhances individuals' self-perceptions of competence and motivation, particularly when they believe in the potential for change in their own status. This study posits that when the assimilation effect takes place, travelers perceive themselves as belonging to a more desirable group and consequently, their self-evaluation remains intact. Furthermore, they consider the destination as a means to enhance their presentation effects and personal image effectively. Therefore, upward body comparison is viewed as facilitating benign envy while curbing malicious envy, as the object of comparison is regarded as their future self.

H7: Upward body comparison positively influence benign envy

H8: Upward body comparison negatively influence malicious envy

Relationship between envy and attitude

We use destination attitude to measure the promotional impacts of travel selfies on a destination. Attitude, commonly defined as a evaluative judgment towards a specific object, can range from favorable to unfavorable or neutral (Lutz, 1991; Thurstone, 1928). It represents a psychological inclination expressed through the evaluation of a particular entity with varying degrees of favor or disfavor (Eagly & Chaiken, 1993; Kim & Stepchenkova, 2015). While previous studies commonly employed visit intention as a measure of potential travelers' consumption preferences (Lee, 2009; Mechinda et al., 2009), it should be noted that users' behavioral intention on a social networking site may not necessarily reflect the likelihood of actual behavior (Yadav et al., 2013; Hajli et al., 2018). Furthermore, several studies have corroborated attitude as a critical determinant in tourist choice behavior (Mohsin, 2005; Pike, 2006). And, other attractive travelers are more likely to influence a potential traveler's destination attitude through a series of cognitive processes. Communicators with attractiveness tend to be well-liked and can exert a positive impact on the products they endorse (Messner et al., 2008). Consistent with this, studies on source credibility suggest that the physical attractiveness of celebrity endorsers has a positive effect on people's attitudes towards advertisements and brands (Roy et al., 2013). Based on these findings, we argue that an appealing tourist image is a pivotal factor in shaping a more positive destination attitude among potential tourists.

We theorize that benign and malignant envy have opposite effects on destination attitude. On the positive side, envy can be motivating (Van de Ven et al., 2009). This propensity can explain why "keeping up with the Joneses," an intense desire to have what others of one's age have, is an impetus for economic growth (Van de Ven et al., 2009). People who experience benign envy from attractive travel selfies may choose to visit the pictured destination to take appealing photos themselves. Their attitude towards the destination could then improve. Negative facets of envy evoke thoughts and actions that belittle others. The drive to avoid uncomfortable social comparison that harms one's self-esteem can lead people to alienate relatively successful comparison targets (Tesser, 1980). The role of envy in increasing avoidance also exists in an information systems context, such

that users abandon some websites in favor of new ones (Lim & Yang, 2015). We posit that malicious envy adversely affects destination attitude when people aim to disparage a target and associated materials (e.g., the pictured destination). The following hypothesis is thus put forth:

H9: Benign envy positively influence on destination attitude

H10: Malicious envy negatively influence on destination attitude

Figure 1 illustrates the theoretical model guiding this study.

Method

Data collection

Data were gathered through a survey posted on WeChat, China's most popular social media platform, to ensure respondents had social media accounts and used social media to some extent. Respondents were introduced to our research context and asked to recall relevant experiences with the following prompt: "Social media (such as WeChat, Weibo, Tik Tok, Xiaohongshu, etc.) is where many people record and share highlights and important experiences in their lives. After a satisfying trip, many people like to share their feelings and attractive photos online and get compliments from their friends. In the past, when using social media, have you seen fascinating travel experiences and destinations? Have you ever liked or commented on any social media content and how it affected your impressions of these places? Please try to recall these browsing experiences and any social media travel stories you have seen."

The questionnaire was distributed in several travel-related WeChat groups using a convenience sampling method. To ensure the quality and relevance of the data, groups focused on tourism, such as travel enthusiast clubs and self-drive tourist groups, were prioritized. High activity groups, which regularly organize travel activities or share travel experiences, were chosen to enhance engagement. The selected groups had a moderate number of members (50-200) to balance practicality and sample size. Members from diverse age ranges, geographic locations, occupational backgrounds, and income levels were targeted to capture a broad spectrum of travel preferences. Additionally, groups that share high-quality and detailed travel information, including those with travel professionals, were selected to improve the accuracy and depth of responses. By following these criteria, the research aimed to select the most suitable WeChat groups and improve the representativeness and reliability of the results.

Respondents participated voluntarily and were informed they could withdraw from the survey at any time. The questionnaire was collected from May 1 to June 2, 2022.

Ultimately, 807 valid questionnaires were acquired, with details provided in Table 1. The sample included 414 men (51.3%) and 393 women (48.7%). Of them, 686 were between the ages of 20 and 50 (85%). Most held a bachelor's degree or higher (85.5%). The majority (81.29%) reported earning a monthly income between 5,000 and 20,000 yuan. Social media channels in this study include WeChat, Weibo, Tik Tok, and Xiaohongshu, which are the dominant social media platforms in the Chinese market. Other social media were not considered due to their smaller user base and more fragmented functionality.

Measurement

We assembled a self-presentation intention scale to assess potential tourists' willingness to post positive travel experiences on social media if they took a trip. Items were adapted from scales by Krasnova et al. (2010) and Walther et al. (2001), both of which had adequate internal consistency (Cronbach's $\alpha = 0.86$ and 0.80 , respectively).

Modifications ensured that the items suited our study context and adhered to Chinese communication conventions.

Items on upward body comparison concerned the extent to which potential travelers engaged in physical upward social comparison after viewing trip photos on social media. The scale consisted of four items regarding body comparison based on four aspects of the viewer's experience. Items were adapted from the Body Comparison Scale (BCS; see Thompson et al., 1999). The original BCS includes general ratings of bodily features at 20 sites (e.g., waist, hips, and cheeks). Dijkstra and Barelds (2011) extracted four items (Cronbach's $\alpha = 0.87$). We referred to the same dimensions in our study, namely facial attractiveness, figure idealization, weight idealization, and general attractiveness.

Self-image concerns covered potential travelers' negative body-related self-perceptions upon exposure to an ideal image. The scale contained two dimensions. The first was psychological and assessed negative physical or appearance-related perceptions resulting from upward social comparison (e.g., "I feel somewhat dissatisfied with my appearance"). Items for this dimension were adapted from the Negative Physical Self Scale (Chen et al., 2006), which contains 48 items across five dimensions (General Appearance, Facial Appearance, Shortness, Fatness, Thinness). We considered the General Appearance dimension (Cronbach's $\alpha = 0.80$). Lyu (2016) used the same three items to measure appearance dissatisfaction (Cronbach's $\alpha = 0.78$). We also included a behavioral intention dimension to measure respondents' psychological perceptions. Several common appearance-enhancing strategies were addressed—improving make-up skills, undergoing plastic surgery, losing weight, and improving dressing skills—that respectively corresponded to the four BCS dimensions (Dijkstra & Barelds, 2011). Examples included "I think I should improve my make-up skills" (i.e., facial attractiveness) and "I think I should take some actions to lose weight" (i.e., weight loss).

We adapted the Benign and Malicious Envy Scale from Van de Ven et al. (2009) 4-item measure (e.g., “I felt inspired by the person whom I envied” [benign envy] and “I felt cold toward the person whom I envied” [malicious envy]). Many measurement tools involving envy address the two dimensions of activated thoughts or action tendencies (Lange & Crusius, 2015; Liu et al., 2019; Van de Ven et al., 2009). We also adapted the 4-item envy scale that Liu et al. (2019) altered from Van de Ven et al. (2009) to match the Chinese context (Cronbach’s $\alpha = 0.79$). Our resultant 4-item benign envy scale contained items such as “I like the good-looking people in these photos” and “I was inspired and motivated by the travel experiences of highly attractive people”; our 4-item malicious envy scale featured items such as “Viewing these pictures makes one feel depressed” and “I feel unfair.” Destination attitude captures a potential traveler’s attitude toward a destination after being exposed to trip photos containing idealized destination images. Our scale contained five items (satisfying, pleasant, enjoyable, worthwhile, and fascinating) adopted from Hsu et al. (2010).

Results

Statistical analysis

To evaluate our proposed theoretical model, we employed two-stage structural equation modeling (SEM) as Anderson and Gerbing (1988) recommended. Data were analyzed in AMOS 28 software. Researchers using SEM must verify the appropriateness of the measurement model first before estimating the structural model (Byrne, 2010). SEM entails two stages. The first, which is used to evaluate the measurement model, involves confirmatory factor analysis (CFA). CFA can concurrently test the relationships between observed variables (indicators) and non-observed variables (latent constructs). The second stage, hypothesis testing, is performed to validate the associations between latent constructs.

A series of validity and reliability tests need to be carried out before conducting SEM (Kline, 2005). Cronbach’s alpha reflects a scale’s internal reliability. All Cronbach’s alpha values in this study exceeded the suggested cut-off of 0.70 (Nunnally, 1994); details are provided in Table 2. Our questionnaire possessed sound internal reliability. As shown in Table 3, all skewness values were less than 3 and kurtosis values were less than 8 (Kline, 2005). The univariate normality of our data distribution was therefore not a concern; the data were suitable for further analyses via SEM (Kline, 2005).

Measurement model estimation

We conducted CFA to assess construct validity and reliability as well as latent factors’ unidimensional characteristics. Five model fit indices were calculated to evaluate the model’s goodness of fit. All fit indices met the requirements for a satisfactory fit (Kline, 2005; $CMIN/df = 2.319 < 3$, $NFI = 0.965 > 0.9$, $TLI = 0.978 > 0.9$, $CFI = 0.980 > 0.9$, $RMSEA = 0.040 < 0.08$). We additionally computed the average variance extracted

(AVE) and composite reliability (CR) as suggested by Anderson and Gerbing (1988) and Hair et al. (2010). As listed in Table 2, the CR values for all constructs were greater than 0.70, and the AVE values were higher than 0.50 (Anderson & Gerbing, 1988; Fornell & Larcker, 1981; Hair et al., 2010). The square roots of AVE values surpassed the correlation coefficients for the associated latent variables (Table 4), revealing the scale's sufficient convergent validity and discriminant validity.

Structural model estimation

All hypotheses were supported. Direct effects were shown in Table 5, and indirect effects were shown in Table 6. Specifically, self-presentation positively affected upward body comparison (H1: $\beta = 0.929$, $t = 32.009$), and upward body comparison positively influenced body image concerns (H2: $\beta = 0.884$, $t = 29.698$). Body image concerns had a significant positive impact on benign envy (H3: $\beta = 0.686$, $t = 13.336$) and malicious envy (H4: $\beta = 0.800$, $t = 10.005$). Body image concerns significantly mediated the relationship between upward body comparison and benign envy (H5: $B = 0.607$; 95% CI = [0.527, 0.699]; $p < 0.000$). Similarly, body image concerns significantly mediated the relationship between upward body comparison and malicious envy (H6: $B = 0.707$; 95% CI = [0.575, 0.868]; $p < 0.000$). Upward body comparison positively influenced benign envy (H7: $\beta = 0.251$, $t = 5.284$) but negatively affected malicious envy (H8: $\beta = -0.189$, $t = -2.463$). Benign envy positively influenced destination attitude (H9: $\beta = 0.915$, $t = 23.876$), whereas malicious envy negatively affected such attitude (H10: $\beta = -0.113$, $t = -3.859$). Since the control variables are crucial for separating the effects of independent variables and producing more precise results, we tested the hypothesis again after controlling the effects of gender, age, education level and monthly income. The results were still significant (see Figure 3). Thus, the theoretical model is considered to have relatively universal applicability.

Table 1. Respondents' demographics.

Category		<i>n</i>	Frequency
Gender	Male	414	51.3%
	Female	393	48.7%
Age	18–20	58	7.2%
	21–25	145	18%
	26–30	167	20.7%
	31–35	179	22.2%
	36–40	118	14.6%
	41–45	35	4.3%
	46–50	42	5.2%

	51–55	39	4.8%
	56 or above	24	3%
Education	Below high school	32	4%
	High school	85	10.53%
	College/university	500	61.96%
	Graduate school	190	23.5%
Monthly income (RMB)	Less than 2,000	27	3.3%
	2,000–5,000	124	15.4%
	5,000–8,000	200	24.8%
	8,000–11,000	160	19.8%
	11,000–14,000	121	15.0%
	14,000–17,000	91	11.3%
	17,000–20,000	64	7.9%
	More than 20,000	20	2.5%

Table 2. Descriptive statistics and reliability of variables.

Construct	Items	Mean	Standard deviation	Cronbach's α
Self-presentation intention				0.921
	V1: If I have the opportunity to travel, I will share more about my pleasant experiences from the trip on social media than the less pleasant ones.	3.62	1.546	
	V2: When I go on a trip in the future, I will present the experience in a more idealistic way.	3.59	1.557	
	V3: I'll put the best parts of the experience on social media.	3.69	1.560	
	V4: When I describe my trip, I present a more positive self-image on social media.	3.57	1.543	
Upward body comparison				0.946
	V5: I usually find people in trip photos with better figures than I have.	3.70	1.485	
	V6: I usually find that people in trip photos have a more ideal weight than I do.	3.61	1.544	

	V7: I usually find people in trip photos to be better looking and more attractive than I am.	3.68	1.529	
	V8: I usually find people in trip photos look better overall than I do.	3.66	1.553	
	V9: I often find that people in trip photos know a lot more than I do about how to look attractive.	3.72	1.549	
Body image concerns				0.947
	V10: I felt a certain level of dissatisfaction with my appearance.	3.69	1.558	
	V11: I was uncomfortable with certain aspects of my appearance.	3.66	1.574	
	V12: I think most of my friends are more attractive than I am.	3.65	1.517	
	V13: I think I should improve my make-up skills.	3.67	1.588	
	V14: I found myself able to accept a certain amount of plastic surgery.	3.65	1.526	
	V15: I think I should take some actions to lose weight.	3.64	1.530	
	V16: I think I should improve my dressing skills.	3.61	1.547	
Benign envy				0.915
	V17: I like the good-looking people in these photos.	3.56	1.503	
	V18: I am inspired and motivated by the travel experiences displayed by highly attractive people.	3.61	1.494	
	V19: I would like to try to take a trip like those people did.	3.63	1.527	
	V20: I'm willing to give them a thumbs-up or leave positive comments.	3.63	1.510	
Malicious envy				0.913
	V21: It is depressing to look at these pictures.	3.62	1.644	
	V22: I feel unfair.	3.56	1.679	
	V23: I think these trips were far less perfect than they seemed, and they should have been worse.	3.63	1.635	
	V24: I'd rather talk about the disappointing parts of the picture than the seemingly perfect ones.	3.50	1.637	
Destination attitude				0.944
	V25: Satisfying	3.69	1.641	

	V26: Pleasant	3.65	1.600	
	V27: Enjoyable	3.67	1.615	
	V28: Worthwhile	3.69	1.633	
	V29: Fascinating	3.68	1.640	

Table 3. Measurement model estimation.

	Standard factor loading	S.E.	<i>t</i> value	Average variance extracted	Composite reliability	Skewness	Kurtosis
Self-presentation intention				0.7443	0.9209		
V1	.861					.260	-.497
V2	.863	.031	32.792***			.301	-.471
V3	.866	.031	32.990***			.396	-.502
V4	.861	.031	27.336***			.297	-.554
Upward body comparison				0.7773	0.9458		
V5	.916					.118	-.683
V6	.877	.025	39.300***			.311	-.542
V7	.881	.025	39.735***			.297	-.441
V8	.852	.027	36.576***			.329	-.528
V9	.881	.025	39.692***			.342	-.510
Body image concerns				0.7182	0.9469		
V10	.855					.419	-.540
V11	.842	.032	31.270***			.415	-.402
V12	.851	.030	31.910***			.481	-.401
V13	.847	.032	31.651***			.390	-.502
V14	.866	.030	32.943***			.467	-.343
V15	.840	.031	31.173***			.393	-.399
V16	.831	.032	30.580***			.424	-.380
Benign envy				0.7304	0.9155		
V17	.869					.424	-.368

V18	.846	.031	31.627***			.391	-.370
V19	.871	.031	33.367***			.397	-.404
V20	.832	.031	30.716***			.395	-.369
Malicious envy				0.7242	0.9131		
V21	.849					.256	-.757
V22	.856	.042	30.286***			.324	-.695
V23	.848	.044	29.849***			.278	-.678
V24	.851	.044	30.037***			.309	-.688
Destination attitude				0.7721	0.9442		
V25	.888					.108	-.722
V26	.877	.026	36.465***			.176	-.653
V27	.866	.027	35.435***			.185	-.622
V28	.894	.026	38.025***			.141	-.765
V29	.868	.027	35.600***			.172	-.720

Table 4. Correlation estimates and average variance extracted.

	Self- presentation intention	Upward social comparison	Self-image concern	Benign envy	Malicious envy	Destination attitude
Self- presentation intention	0.8627					
Upward social comparison	.857**	0.8816				
Self-image concern	.787**	.828**	0.8475			
Benign envy	.719**	.724**	.791**	0.8546		
Malicious envy	.480**	.471**	.572**	.628**	0.8510	
Destination attitude	.833**	.829**	.807**	.711**	.443**	0.8787

Note: Diagonal values are square roots of AVE values; off-diagonal values are estimates of intercorrelations between latent constructs.

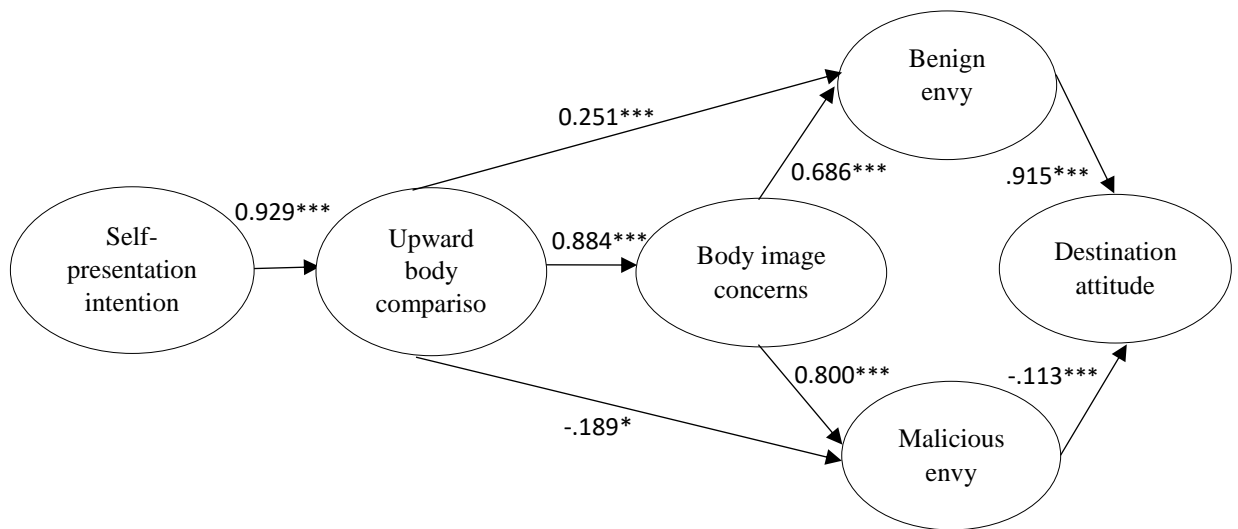
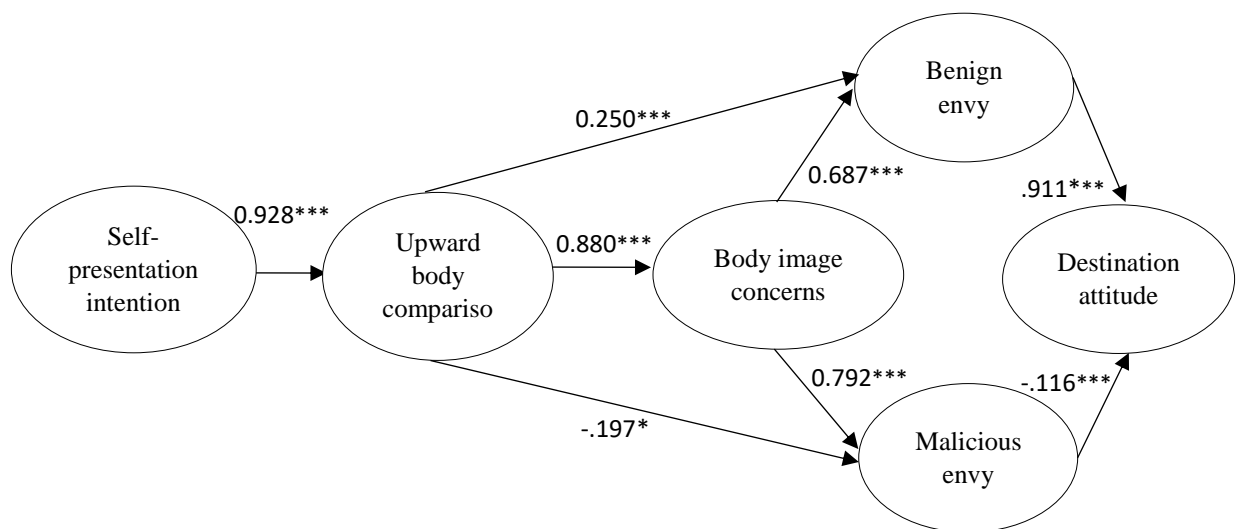


Figure 2. Structural model.



Control variables: gender, age, education level and monthly income

Figure 3. Structural model (Eliminates the effect of the control variables).

Table 5. Hypothesis testing results.

Hypothesis		B	S.E.	C.R.	Result
H1	Self-presentation intention positively influences upward body comparison.	0.929***	0.030	32.009	Supported
H2	Upward body comparison positively influences body image concerns.	0.884***	0.029	29.698	Supported
H3	Body image concerns positively influences benign envy.	0.686***	0.049	13.336	Supported
H4	Body image concern positively influences malicious envy.	0.800***	0.084	10.005	Supported
H7	Upward body comparison positively influences benign envy.	0.251***	0.044	5.284	Supported
H8	Upward body comparison negatively influences malicious envy.	-0.189*	0.079	-2.463	Supported
H9	Benign envy positively influences destination attitude.	0.915***	0.044	23.876	Supported
H10	Malicious envy negatively influences destination attitude.	-0.113***	0.031	-3.859	Supported

Note: * $p < 0.05$; B = standardized estimates.

Table 6. Hypothesis testing results of indirect effect.

Mediation effect analysis									
Hypothesis	B	S.E.	Bias-corrected 95% CI			Percentile 95% CI			Result
			lower	upper	p	lower	upper	p	
H5	0.607	0.051	.527	.699	.000	.523	.694	.000	Supported
H6	0.707	0.088	.575	.868	.000	.566	.858	.000	Supported

Note: B = standardized estimates.

Discussion and Theoretical implications

Overall, the current study found that positive self-presentation intentions motivate people to compare themselves with more attractive tourist images. And potential travelers through the upward comparison to determine whether destinations satisfy their desire for online self-image enhancement. Whether the destination in the picture could act as a stage for highlighting the body image, becomes one of the determining fact for them to have positive attitude towards destinations. This proves that presenting an attractive body

image is an important part of positive self-presentation of travelers. We have provided evidence that travel consumption should be considered in terms of online tourist-to-tourist interaction. Other travelers significantly influence potential travelers' destination selection. Advances in information and communication technologies have transformed tourism globally (Cohen et al., 2022) and now encompass the intersection and reflection of people, places, and social networks (Kim & Tussyadiah, 2013; Urry, 2002). The following section will detail a series of specific empirical findings and theoretical contributions.

First, our results offer empirical support for current tourists' self-presentation that focuses on body image. We confirmed a travel motivation tied to presenting an attractive body image. We assessed the pre-trip phase and noted that, during the information-gathering stage, potential tourists tend to choose destinations that promote self-image presentation. Researchers have observed a shift in tourism, namely in the growing prevalence of self-objectification. Dinhopl and Gretzel (2016) proposed the concept of "self-directed tourist gaze", in which tourists gaze at themselves by taking selfies and make themselves a tourist attraction (p.127). A core component of tourists' gaze is objectification. Self-directed gazes place tourists in a visual framework for self-presentation rather than self-understanding (Dinhopl & Gretzel, 2016). Similarly, Lyu (2016) reported that appearance surveillance positively affected strategic travel selfie editing. Fox and Rooney (2015) demonstrated that highly self-objectified individuals were more willing to edit photographic images to generate positive impressions. Our findings complemented these results.

Considering tourism's far-reaching consumption potential, travel selfies may enable people to draw others' attention and gain admiration. Previous research has addressed the flaunting of cultural capital and consumption power through travel (Liu et al., 2019). We determined that body image attractiveness is another aspect of tourists' online identity management: presenting a positive self-image (e.g., an appealing body image) is a primary motivation among potential travelers. People hold good attitudes toward destinations that may be conducive to positive self-presentation. More appealing images of other tourists on social media cause viewers to become more interested in the pictured destinations. Christou et al. (2020) relatedly pointed out that tourists' trip photos have shifted from capturing local people and scenic spots to framing themselves as the only (or main) subject.

We further documented a gaze interaction among tourists. Visitors' self-presentation intentions promote upward social comparison, reflecting an interest in observing others' images—other people's ideal self-presentation implores individuals to try to keep up. The image of others thus serves as a mirror, allowing a person to gaze at themselves in the reflection of an ideal image. Scholars have argued that the tourist gaze shapes relationships of power between people who gaze and the object of their gaze, no matter what or who the target is (Urry, 2002). This circumstance has been criticized for creating "an asymmetrical power relationship" (Urry & Larsen, 2011, p. 204). The gaze relationship can be reversed as well: observing others' body image informs the ideal body

image in one's mind. Bandyopadhyay and Ganguly (2018) defined the field of gaze as a complex network where the people in it cannot claim to be politically innocent or naive. The tourist gaze in contemporary digital culture has hence been redefined via social media.

Second, upward body comparison on social media was found to activate body image concerns and two types of envy. For benign envy, attractive tourists in selfies were seen as role models for self-improvement irrespective of whether viewers' body image concerns increased. Therefore, regardless of if the contrast effect or the assimilation effect applied, the comparator sought to fill this gap through self-improvement. This outcome aligns with research on the normative direction of people's social comparison; that is, people compare themselves with slightly more competent others (Wood, 1989). Doing so facilitates self-evaluation while inspiring self-improvement. Self-evaluation and self-improvement have especially been shown to drive social comparison (Collins, 1996). Even if such comparison diminishes self-satisfaction, viewers still see others as objects to learn from. Brickman and Bulman (1977) point to the "pleasures and pains of social comparison", suggesting the beneficial but hedonically costly effects of comparison with superior objects: painful, but also more valuable than downward comparison (p.179).

Self-concern mainly modulated the inhibition or activation of malicious envy in our study. As such concern rose, the superior comparison target was subjected to malicious envy-related attacks and put-downs to compensate for the comparator's lower self-evaluation. Malicious envy was suppressed in the absence of self-concern. These results are congruent with assimilation effects. Upward social comparison can be self-enhancing when the comparator sees themselves as belonging to a group of superior people and is thus obliged to defend that group. Our findings are useful for explaining social media interactions involving self-presentation consumption. Upward social comparison can also be deliberate: a person may judge whether an objective is really comparable or relevant before scrutinizing it (Wood, 1996). People who seek self-improvement may search upward to learn from superior others (Wood, 1989). A superior comparison target can indeed boost the comparator's consumption intention despite elevated self-concern. Our model further helps to explain pervasive self-presentation anxiety and hostility toward more attractive presenters on social media.

Finally, this study enriches the literature on destination attitude. In tourism behavior research regarding social media, destination visit intention is often used to measure the effectiveness of destination marketing. The antecedents of destination attitudes deserve a closer look. Attitudes towards destinations and travel consumption crucially inform tourists' choices (Mohsin, 2005; Pike, 2006). We identified other visitors' physical attractiveness as a factor shaping positive destination attitude.

Given the ubiquity of self-presentation behavior among contemporary travelers, destination selection partially relies on whether a destination serves as a stage to highlight one's attractiveness through complimentary selfies. Other tourists' appealing selfies serve as advertisements for a place's self-presentation potential. Our work takes an early step to

remedy the relative lack of investigation into tourists' body image attractiveness. Some studies on destination endorsers have reported positive advertising effects of physical attractiveness. Van der Veen and Song (2014) noticed that communicators' attractiveness positively influenced the audience's destination attitudes and indirectly improved the audience's visit intentions. Messner et al. (2008) determined that, when a physically attractive communicator seeks to change a receiver's behavior, the receiver is more likely to follow the communicator's advice. Glover (2009) described the potential effects of celebrity images on destination awareness and purchase decisions when promoting destinations.

Managerial implications

We discovered that attractive images in trip photos stimulate the audience's desire for tourism consumption. Building landscapes conducive to photography can encourage tourists to take selfies. Organizing travel photography activities on social media can also compel viewers to find unique shooting locations in destinations. Turkey's Ministry of Culture and Tourism has launched a selfie contest calling on people to take selfies in museums and share them on social media platforms such as Twitter, Instagram and Facebook. Competition prizes include a free museum card, a free ticket to one of the concerts of the State Opera and Ballet.

At the same time, highly attractive travel selfies are the source of negative physical perceptions. When people believe that superior others' achievements are attainable, upward social comparison is inspiring rather than disheartening (Kim & Chung, 2023). For example, in recent years, some tourist attractions in China have begun to provide professional photography services for tourists. With the help of some professional photography studios, which include makeup artists, photographers, photo editors, etc., the regular tourist can also take very attractive travel selfies. Managers' positive guidance can help translate negative self-perceptions into benign envy and produce more optimistic destination attitudes. The transformation of tourism photography has heightened the pertinence of self-expression and identity formation (Van Dijck, 2008). Marketing managers are urged to cultivate a deeper understanding of a destination's social value and associated identity information to more easily target tourist segments that the destination can attract.

Limitations

We examined contemporary tourists' upward social comparison, envy, and self-presentation motivations and assembled a holistic model to aid tourism industry practitioners and researchers. Several limitations of our effort illuminate avenues for future work. First, while some studies have underlined body image dissatisfaction as the main outcome of upward social comparison (Myers & Crowther, 2009; Want, 2009), others have discussed self-perceived self-enhancement. We did not test conditions under these two mindsets. Tourists' personalities and environmental settings may influence

potential visitors' self-perceptions. Subsequent research can explore relevant factors. Second, to unearth many potential tourists' subjective experiences, we gathered data through self-report surveys. Respondents' recall can be biased. Other issues, such as dishonesty and avoidance of negative questions, can also cause questionnaire results to not fully reflect reality. Scholars can employ experimental or qualitative methods in follow-up studies to obtain more authentic responses.

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Boosting Travel Desire Through Secure Attachment: Examining Travel Influencers' Impact via Attachment and Social Comparison Theories

Introduction

The tourism industry, particularly the hospitality sector, has increasingly embraced influencer marketing due to its remarkable capacity to captivate public interest (Leite et al., 2024; Polat et al., 2024). A prominent example occurred on November 11, 2020, when Tamdrin, an ethnic Tibetan herder, filmed himself walking through his mountain village in Litang, China. This video became immensely popular on TikTok, amassing 1.2 billion views within four weeks (Zhang & Huang, 2022), and subsequently sparked widespread interest in his remote hometown on the Tibetan Plateau. The rise of “micro-celebrity” or “social media influencer” (SMI) marketing in tourism and hospitality can be attributed to its favorable outcomes for businesses (Jang et al., 2021). Generally, SMIs use positive self-presentation on social media to attract attention and build a large following (Khamis et al., 2016).

However, the curated lifestyle that SMIs deliberately present can be a double-edged sword. On one hand, audiences can gain vicarious satisfaction from witnessing extravagant vacations in exotic locations and luxurious meals at renowned restaurants, which often leads them to aspire to similar consumption (Marwick, 2015; Jin et al., 2019). On the other hand, extensive research suggests that exposure to such posts can result in social comparison and envy among viewers (Feng et al., 2021). The dual impact of travel envy is well documented: while benign envy can lead to positive outcomes, malicious envy diminishes attitudes toward destinations and intentions to visit them (Kim and Chung, 2023; Xu et al., 2023). In response to previous research calls, this study seeks to thoroughly investigate the dual effects of travel envy using social comparison theory as a foundational framework.

Research on dual envy has found that enhancing an individual's sense of control and self-confidence, along with fostering positive, high-quality relationships with those being envied, can activate benign envy rather than malicious envy (Van de Ven et al., 2009). Attachment theory, developed by John Bowlby (1982), suggests that an attachment figure provides feelings of love and support, facilitating a positive self-concept and enhancing a sense of control. When individuals perceive the person they are comparing themselves to as warm, supportive, and encouraging, they are more likely to experience benign envy, which is associated with self-improvement, rather than malicious envy, which is linked to aggression. Influencers are often seen as reliable and supportive advisors with traits such

as intelligence and poise (Freberg et al., 2011). This research introduces attachment theory to explore travel SMIs as online attachment figures and examines their influence on audiences' perceptions of envy and willingness to explore destinations.

To achieve this objective, we designed a mixed-methods study. The first stage involved a qualitative investigation to identify what constitutes an 'attachment figure' for SMI followers. In the subsequent phase, a quantitative study was conducted to assess how an attachment figure influences social comparison, envy, and subsequent visit intentions. Theoretically, this research contributes by examining various dimensions of online attachment figures from the audience's perspective and extending the theoretical application of attachment theory to the social media context. Furthermore, we explored how psychological proximity to an online attachment figure can mitigate negative comparison outcomes, such as malicious envy, while enhancing positive comparison outcomes, including benign envy and visit intention, thereby enriching the existing literature. Practically, our findings provide insights for professionals, offering guidance aimed at generating beneficial outcomes for both destinations and consumers.

Theoretical background

Social media influencer marketing

Personal influence is known to be an effective marketing tool. Consumers, especially young people, typically see SMIs as more relatable, authentic and trustworthy than traditional celebrities (e.g., Lou & Yuan, 2019; Trivedi & Sama, 2020). SMIs gain large social media audiences thanks to having expertise on certain topics and can thus heavily mold the decisions of their followers and other consumers (Ki & Kim, 2019). Social media plays a crucial role in providing travel-related information and inspiration for trip planning (Guo et al., 2024). Travel SMIs often share personal travel experiences and view their blogs as platforms for self-expression and self-discovery (Azariah, 2016; Azariah, 2012; Gąsiorowska, 2017; Pan et al., 2007). As a result, these influencers not only affect consumers' choices but also influence their spiritual quests related to the meaning of travel.

Several theoretical frameworks have been used to analyze the impact of travel SMIs. Research on para-social relationships shows that travel influencers and their audiences often develop long-term, one-sided imaginary relationship (Yılmazdoğan et al., 2021). Travel influencers act as opinion leaders, guiding their audience's vision for future travel experiences (Kilipiri et al., 2023). The credibility of travel SMIs, determined by factors like expertise, trustworthiness, social attractiveness and physical attractiveness, positively influences audience perceptions (Le and Hancer, 2021). Kapoor, et al. (2022) examined the persuasive effects of travel influencers using McGuire's communication–persuasion

matrix (1989). Pop et al. (2022) applied customer journey theory to investigate how SMI trust impacts customer travel decision-making. Manthiou et al. (2024) identified five key dimensions of travel influencers: inspiration, authenticity, attractiveness, content expertise, and trustworthiness.

Previous studies have generally found that the online influence and persuasion of travel SMIs are rooted in their ability to cultivate intimate online relationships with their audiences. However, online interpersonal interactions often trigger social comparisons, and unfavorable comparisons have been shown to result in lower self-esteem and self-satisfaction. Research has documented competition and mutual comparison among travel bloggers (Mariani et al., 2021), but there has been insufficient research into the upward comparison and envy that travel bloggers' superior travel experiences cause among their audiences. Therefore, this study introduces social comparison theory, and envy, to enrich the literature on online interactions of travel SMIs and audiences.

Travel envy

Influencers excel at creating visually captivating content, such as stories and videos, which enhances their appeal and influence on consumers (Audrezet et al., 2020). Travel experiences showcasing unique adventures, breathtaking locations, and luxurious accommodations are particularly suited for social media platforms (Liu et al., 2019; Sharma et al., 2022). However, these highly curated images can evoke feelings of envy among viewers (Russell et al., 2022). Social media research outside the realm of tourism has highlighted the negative impacts of influencers' positive self-presentation and displays of wealth, including audience dissatisfaction, lower self-esteem, heightened anxiety, and decreased happiness. Envy is often more pronounced when individuals perceive others as similar to themselves (Van de Ven, 2016). Social media influencers are generally seen as more relatable than traditional celebrities (Manthiou et al., 2024), which means that posts by travel influencers, particularly bloggers who portray a glamorous, travel-centric lifestyle, risk instigating feelings of envy and even perceived unfairness among their audiences.

Envy arises from upward comparisons, a powerful emotion experienced when individuals recognize their lack of another's qualities, achievements, or possessions (Festinger, 1954). Festinger's social comparison theory posits that people inherently evaluate their status against others in terms of abilities and opinions. While comparisons with those perceived as inferior can help maintain a positive self-image, comparisons with superior individuals can inspire self-improvement but may also harm self-esteem (Cramer et al., 2016; Van de Ven et al., 2009; Collins, 1996).

People experiencing envy instinctively strive to alleviate the negative emotions associated with feeling inferior. This reaction manifests in two forms: benign envy and malicious envy (Van de Ven et al., 2009). Benign envy is characterized by a motivation to improve oneself, while malicious envy involves a desire to undermine the envied individual. Psychological studies have shown that benign envy often inspires people and enhances positive behavioral intentions, whereas malicious envy is linked to depressive emotions and a tendency towards destructive actions (Van de Ven et al., 2009). The relationship between the person feeling envy and the target of that envy influences the type of envy experienced. In tourism, dual envy can play significant yet inconsistent roles in destination marketing. Little is known about the factors that promote prosocial (benign) envy and deter aggressive (malicious) envy. Attachment theory suggests that attachment security can enhance psychological resilience, enabling individuals to actively cope with threatening information. Therefore, attachment theory is introduced here to explore the antecedents that might influence the type of envy experienced.

Attachment theory

According to Bowlby's (1982) attachment theory, humans have an innate tendency to seek proximity to caring, reliable, and supportive individuals. Attachment figures offer protection, comfort, and support (Bowlby, 1982). Preserving an intimate relationship with an attachment figure can enhance a person's self-confidence and promote creative problem solving (Green & Campbell, 2000; Melen et al., 2017). These figures act as both a 'safe haven' and a 'secure base' (Mikulincer & Shaver, 2007). A safe haven affords a person comfort when feeling threatened or distressed. A secure base comes into play when a person yearns to explore their environment; engage in work, play, or other activities; and interact with peers (Bowlby, 1988; Feeney, 2004).

Attachment theory also maintains that being close to a supportive attachment figure enhances one's sense of control in the context of exploration. Psychologically, attachment security drives self-expansion (Mikulincer et al., 2003), which involves integrating an attachment figure's resources and strengths in one's self-concept. A person who trusts that they have an attachment figure's unwavering support will feel secure enough to explore their surroundings, take on challenges, and uncover insights (Feeney, 2004). This sense of security encourages individuals to execute behaviors that promote personal development (e.g., embracing challenges, traversing new territories, and staying true to oneself) (Feeney & Thrush, 2010). The traits of an attachment figure include authenticity, supportiveness, encouragement, responsiveness, noninterference, attracting the relationship partners to remain close to the attachment figure, and the provision of comfort and protection (Mikulincer & Shaver, 2007; Feeney, & Thrush, 2010). Virtual and imaginary figures can evolve into symbolic attachment figures and becoming targets for proximity seeking and security (Mikulincer & Shaver, 2007).

Previous studies have investigated the traits of travel influencers from the perspective of followers, and we found that these traits partially overlap with the dimensions of attachment figures. Travel influencers often act as opinion leaders, inspiring travelers and helping them envision their trips before making a purchase (Kilipiri et al., 2023). People who receive trip-related support from more experienced travelers tend to immerse themselves more deeply in tourism activities (Prebensen & Foss, 2011). Audiences perceive SMIs as trustworthy and authentic (Pop et al., 2022), drawn to their likability and attractiveness (Taillon et al., 2020), and tend to wishful identify with them (Le and Hancer, 2021) and build warm relationships with them (Kapoor et al., 2022). Additionally, individuals tend to maintain intimacy with their attachment figures and resist separation, which aligns with characteristics of para-social relationships between influencers and audiences (Yilmazdoğan et al., 2021; Rubin et al., 1985; Bowlby, 1982).

The convergence of these descriptions suggests that audiences may perceive travel SMIs as online attachment figures, although how online media figures function as attachment figures remains unclear. In face-to-face relationships, attachment figures provide physical proximity and responsiveness, reinforcing secure attachment. Online attachment figures, however, are primarily accessible on a spiritual and psychological level, limiting the application of traditional attachment theory in social media contexts. Individuals “constantly construct their experience of attachment” in close relationships (Johnson & Whiffen, 1999, p. 371), and more flexible methods are warranted when assessing how audience members’ interactions with travel influencers can enhance viewers’ sense of attachment security. This study responds to prior calls for a deeper understanding of the characteristics of travel SMIs from followers’ perspectives (Lou, 2022).

Method

We employed a mixed-method approach using an exploratory sequential design. Initially, we gathered and analyzed qualitative data, which informed the subsequent quantitative study (Onwuegbuzie et al., 2010). We conducted in-depth interviews to determine whether consumers perceive travel influencers as attachment figures. Specifically, in Study 1, we explored how survey respondents evaluated their favorite travel influencers and described their relationships with them. The results revealed a series of psychological processes, which helped us identify the dimensions that constitute an attachment figure. In Study 2, we quantitatively assessed how an online attachment figure, defined by these dimensions, influenced viewers’ social comparison processes and the two types of envy.

Study 1: Investigating travel influencers' dimensions as attachment figures

Method of Study 1

According to Johnson and Whiffen (1999), attachment is an interpersonal process best understood by engaging with individuals who are actively constructing meaning in their relationships. Therefore, Study 1 entailed in-depth interviews to gather qualitative data on the experiences and perceptions of followers who felt securely attached to travel SMIs. Interviewees were identified via purposive and snowball sampling. The following eligibility criteria applied: informants used social media frequently, followed at least three travel SMIs, and had been following them for at least three months at the time of interviews. Twenty interviews were held in total. These conversations, which lasted between 30 and 60 minutes each, were conducted either in person or via WeChat. Study 1 adopted a semi-structured interview format, with questions developed through a review of the literature and discussions with an expert panel. The interviews were designed to gain a comprehensive sense of informants' perceptions, attitudes, and opinions about SMIs.

Interviewee Number	Gender	Age	Destinations visited in the last six months	Number of travel bloggers followed
No.1	F	29	Dali	4
No.2	M	29	Xishuangbanna	3
No.3	F	31	Zhangjiajie National Forest Park	5
No.4	F	55	Heavenly Lake of Tianshan in Urumqi	3
No.5	M	55	Mount Emei	3
No.6	F	22	Lijiang	5
No.7	F	21	Gulangyu Island	4
No.8	F	31	Sanya	3
No.9	F	31	Sanya	4
No.10	M	22	Harbin Ice and Snow World	6
No.11	F	23	Harbin Ice and Snow World	3
No.12	M	39	Stone Forest in Yunnan	5
No.13	F	45	Li River in Guilin	4
No.14	M	30	Chongming Island	3
No.15	F	30	Chongming Island	6
No.16	F	25	Jiuzhaigou	7
No.17	F	22	Mount Huang	3
No.18	F	22	Pingyao Ancient City	3
No.19	M	45	Sanya	3
No.20	F	46	Sanya	4

Table 1. Participant Profile.

Data analysis

Study 1 applied an iterative approach when coding and recoding the data (Creswell & Poth, 2016). This process involved initial, open, axial, and selective coding (Brooks et al., 2021). To begin, words, phrases, and substantial data segments were grouped under conceptual headings. Open coding was subsequently employed to reveal patterns and variations by continually comparing concepts with fresh data, a process that exposed additional concepts. We then used axial coding to identify relationships between these emerging concepts. Finally, central theoretical themes surfaced during selective coding. The concepts identified at the outset were consistently observed in the data; this recurrence reinforced their theoretical relevance and underpinned our conceptual framework. As we established preliminary versions of our findings, we revisited the initial objectives, examined pertinent literature, constructed visual diagrams, and sought suggestion from experts. These steps jointly led to the achievement of theoretical saturation. Our data iteration process unearthed four attachment figure dimensions from a range of discrete traits that enhanced audience members' attachment security: the influencer's sincerity, deservingness, personal attractiveness, and encouragement (see figure 1).

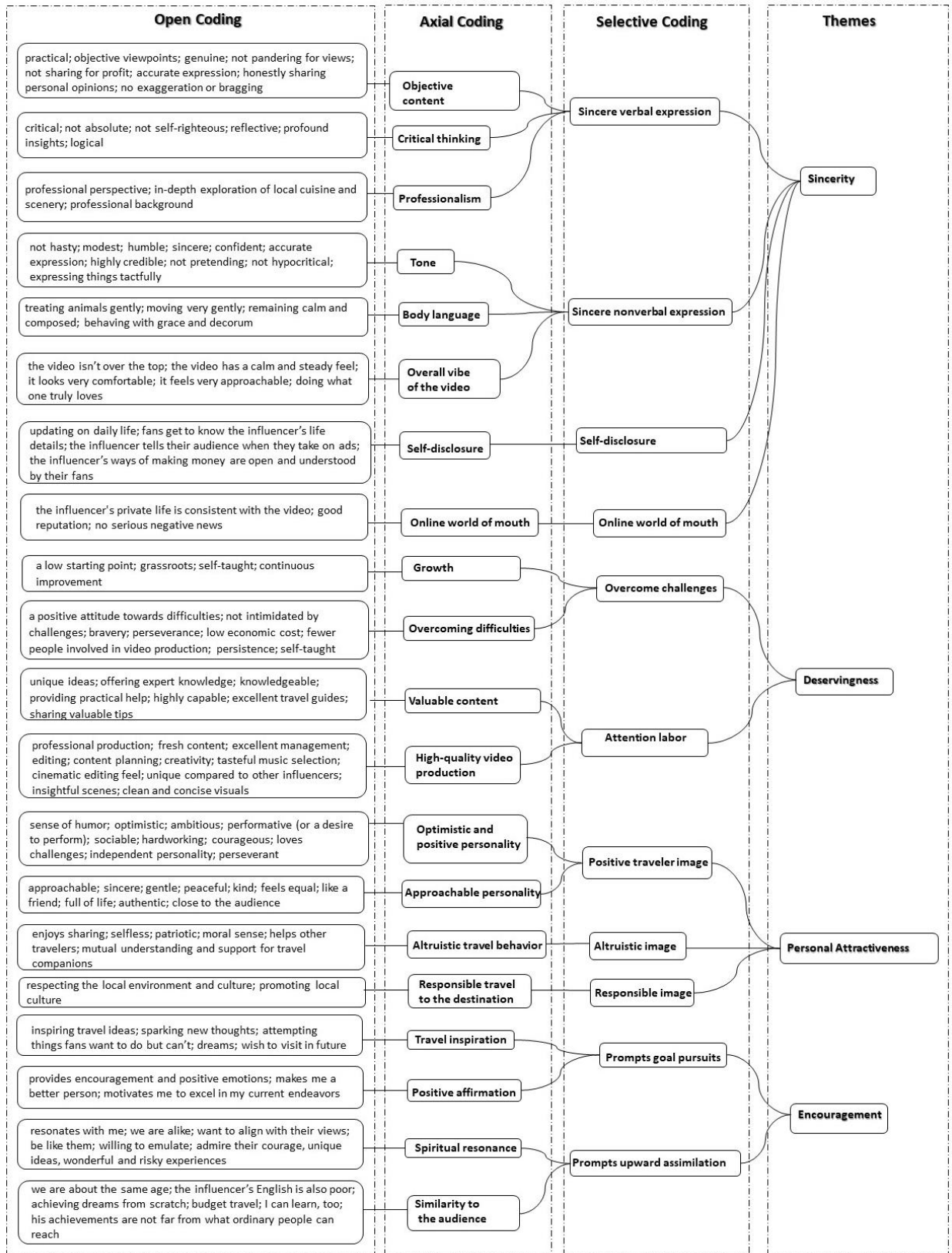


Figure 1. The data iteration process

Findings

Travel influencers' sincerity

Along the first dimension, sincerity, we found that viewers were highly sensitive to whether an influencer's motives for sharing online were sincere. From the audience's perspective, influencers should express their true feelings and empower their followers to make independent decisions, rather than seeking profit or pleasing their audience. Although SMIs' perceived sincerity developed in multiple ways, we profile four key aspects below.

The first, influencers' content, featured several criteria with which viewers could appraise an influencer's truthfulness and objectivity: logical coherence, quality of arguments, expertise, and critical thinking. One interviewee described an influencer as follows:

"He used to be a journalist, he knew extraordinary people from all over the world, and his videos would have some critical, reflective, insightful views on life. He offers a multi-angled analysis that's more professional than other vloggers. Unlike them, he sticks strictly to the facts without any hype or exaggeration."

Another interviewee commented:

"What truly convinces me about this vlogger is that there's nothing pretentious about him. He speaks with precision but never comes across as arrogant. He shares his everyday life like a normal person. He's humble, knowledgeable, but never boastful. He gives off a genuine and down-to-earth vibe."

Nonverbal cues seemed to help the audience assess the speaker's sincerity, as evidenced by confident body language, a genuine attitude, and a moderate pace and tone of speech.

Similar sentiments from other interviewees indicated that sharing details of one's daily life could reduce the psychological distance between an influencer and their followers in addition to giving followers information with which to evaluate the influencer's personality.

In general, travel influencers who are perceived as having sincere motivations for sharing information are more likely to be seen as secure attachment figures. According to attachment theory, a secure attachment figure is non-intrusive (Feeney & Thrush, 2010). Intrusive support can imply a lack of trust and undermine the recipient's independence (Feeney & Van Vleet, 2010). When one sees themselves as having reduced power within a relationship, they often feel substantially less accepted, protected, and safe than they would otherwise (Overall & Sibley, 2009). Conversely, when one senses a power balance

in interpersonal interactions, they become more inclined to form connections and collaborate effectively. Therefore, influencers who maintain a sincere, non-intrusive approach are viewed as more secure. Previous studies on SMIs show that influencers who post too many advertisements or whose content is clearly brand-controlled tend to lose followers, as these posts are seen as intrusive, uninteresting, untrustworthy, and financially motivated (Vrontis, et al., 2021).

Travel influencers' deservingness

The second dimension we identified was the influencer's deservingness. Interviewees often focused on whether travel influencers had put in sufficient effort to attain their privileged positions. Two traits appeared especially pertinent to deservingness, with the first being influencers' overcome challenges (e.g., overcoming difficulties and developing personally). One interviewee explained:

“Whether it’s a car breaking down in a remote area with no cell signal to contact insurance or repairs, altitude sickness, pushing a car due to power loss and being forced to camp in the wilderness because [the influencer] couldn’t reach a town due to poor road conditions—they always maintain an incredibly optimistic mindset in solving problems. This optimism makes difficult situations endearing and authentic.”

The second trait associated with deservingness was attention labor. Brooks et al. (2021) coined this term, defining it as the entrepreneurial work necessary to capture and profit from audience members' attention. Fans expected travel influencers to share valuable content, offer potential visitors advice, and vividly and professionally introduce a location's cultural and historical background. Such tasks are representative of influencers' attention labor. For example, one interviewee said: *“The videos frequently feature detailed explanations of historical stories, akin to embarking on an immersive virtual journey with a real tour guide.”*

Another interviewee remarked:

“The aerial shots and filming techniques they use are truly impressive. Especially in a place like Tibet, with its stunning natural landscapes, it’s impossible to fully capture its beauty without aerial footage.”

Assessing an influencer's competence and deservingness is crucial in forming psychological attachment with the audience. Deservingness involves evaluating the outcomes of their actions, suggesting a level of personal responsibility (Feather et al., 2013). If the audience perceives that the influencer enhances their insight and knowledge through shared interests (Lee and Gretzel, 2014), they view the influencer as accountable for their status. Content that is visually appealing, prestigious, original, informative, and interactive fosters positive attitudes towards the influencer as a taste and opinion leader with persuasive power (Ki and Kim, 2019; Vrontis, et al., 2021). Attachment theory suggests that people tend to rely on strong and intelligent individuals capable of providing support. Influencers who demonstrate and establish their deservingness online

meet audience expectations of their abilities and talents, promoting the growth of psychological attachment.

Travel influencers' personal attractiveness

The third dimension we identified was travel SMIs' personal attractiveness. First, a positive and optimistic traveler image could illustrate for viewers an influencer's excitement about exploring, thus attracting the audience's attention and affection.

In speaking about a travel SMI he loved, one interviewee shared that *"He never gives up on destinations just because they are lesser-known; he relishes the feeling of mystery and the unknown, enjoying being on the road."*

Secondly, when influencers, act like an ideal friend, presenting an approachable personality can also attracts audiences and develops emotional attachment with them. Another interviewee commented on her favorite influencers:

"Their temperament and character are truly admirable. They never blame each other when faced with problems and can even joke and find joy in hardship. As someone with a bit of a temper, I truly envy their attitude."

In addition, when travel SMIs exhibited altruistic traits (e.g., kindness, tolerance, healing), these influencers were likely to be perceived as attachment figures. One interviewee described an influencer thusly:

"He is always positive and upbeat, which has earned him a lot of support, and he also goes out of his way to help others. He sprinkles this passion and vitality, kindness, and gentleness on every inch of land he walks across."

The third core trait we noted was a responsible traveler image. Discussing a specific influencer, one interviewee said, *"He always approaches unfamiliar cultural customs and natural landscapes with kindness and respect. He adheres to local laws, customs, and traditions, leaving a great impression on people."*

To foster meaningful interactions, SMIs should strive to connect with their audience on a personal level, inviting them into more engaging discussions (Ge and Gretzel, 2018). The attractiveness of SMIs largely depends on their ability to cultivate a compelling personal brand through dedicated efforts (Kapoor et al., 2022). Audience members have been shown to develop psychological closeness with media figures when the figures are portrayed as benevolent and compassionate (Knoll et al., 2015). Individuals attempt to approach and maintain intimate and emotional connections with partners who are perceived as attachment figures and find them attractive. According to attachment theory, timely response and effective support are important functions of attachment figures. Interviewees indicated that they tend to believe that a person with more positive, altruistic, and responsible personality traits is more likely to respond, comfort, and

support others. In face-to-face relationships, such people are also considered prosocial and more attractive.

Travel influencers' encouragement

The fourth important dimension we found is encouragement. An important reason for audiences to follow an influencer for a long time is that they perceive themselves to gain positive influence from the relationship, including gaining psychological energy, enhancing positive self-concept, and self-affirmation.

We pinpointed two elements related to encouragement. The first is to encourage one's audience to pursue a goal, including by activating travel motivations and giving the audience affirmation. Recognizing and confirming audience members' potential are vital. One interviewee expressed the following feelings about a travel SMI:

"He has been cycling through many countries for over three years, always on the road. I dream of one day buying a bicycle like his, preparing the gear, and setting off on a journey just like him. That urge is stronger than any other."

The second element is to inspire audience members' upward assimilation. When people have much in common with superior others, they can ingratiate themselves with these superior groups. Doing so raises their likelihood of achieving goals, increases their chances of catching up to superior individuals, and bolsters their perceptions of their own status (Holyoak & Thagard, 1997; Tesser, 1988). This upward assimilation process can spur one's pursuit of self-improvement. One interviewee stated that *"Despite his limited English skills, [the influencer's] ability to travel the world and effectively communicate with locals has greatly inspired me."*

Encouragement involves expressing affirmation through linguistic or symbolic means to instill bravery, persistence, self-belief, inspiration, or hope, particularly when individuals face challenging situations or strive to reach their potential (Wong, 2015). According to attachment theory, such encouragement fosters exploration and enhances enjoyment by instilling excitement and confidence in the explorer's abilities (Feeney & Thrush, 2010). Travel bloggers, in particular, have a unique opportunity to share personal travel experiences—transformative journeys that can profoundly impact their audience (Pudliner, 2007). Through their narratives, they cultivate self-discovery and self-identity (Maggiore et al., 2022). The travel experiences of influencers serve as significant platforms for self-reflection, emotional transformation, personal identity formation, and growth (Maggiore et al., 2022). As audiences witness the growth and transformation of these influencers, they too can experience self-reflection and personal development, reinforcing the crucial role that travel influencers play as attachment figures. By encouraging and empowering their followers, travel influencers not only inspire

exploration but also nurture a sense of belonging and aspiration, making them integral to their audience's journey of self-discovery.

Study 2: Empirically examining how attachment figure dimensions affect audience members' travel envy

Hypothesis development

Effects of attachment figure dimensions on upward comparison

People tend to compare themselves with those they view as more advantaged in order to promote their own development (Cramer et al., 2016). Individuals with higher self-esteem display stronger inclinations in this regard. Therefore, when one senses that a loving, supportive person is encouraging them, they are more motivated to develop themselves and to perform upward comparison.

Secure attachment helps buffer against self-esteem fluctuations that social comparison can cause (Mikulincer & Shaver, 2005). If people believe that upward social comparison may threaten their self-esteem and self-evaluation, they could avoid comparing themselves to more superior others (Cramer et al., 2016). Attachment theory frames proximity to caring and loving attachment figures as a primary source of genuine self-worth (Mikulincer & Shaver, 2005). These figures can alleviate negative emotions (e.g., feelings of inferiority arising from upward comparison) and make people more amenable to the possible self-improvement associated with upward comparison.

Upward comparison to a secure, superior figure can improve one's self-evaluation as well. During upward assimilation, people join a superior group and consequently experience a more positive self-evaluation (Collins, 1996; Xu et al., 2023). Tesser (1988) termed this phenomenon "basking in reflected glory." Researchers (Brewer & Weber, 1994) have reported that psychological closeness promotes one's assimilation with comparison targets and engenders a sense of belonging or inspiration upon establishing connections with superior others (Collins, 1996). When people follow their instincts and forge close relationships with their attachment figures, both practically and psychologically, they may experience a greater degree of upward assimilation.

An attachment figure further fortifies one's conviction in being able to achieve their goals, thus strengthening their motivation for self-improvement and upward comparison. People with aspirations of success are prone to drawing inspiration from role models who embody their ideal selves. People with hardy drives for self-improvement and achievement particularly engage in upward comparison (Collins, 1996). We therefore

presume that, when an individual sees a travel SMI as an attachment figure, the audience member's upward comparison with that influencer will escalate:

H1: Travel influencers' attachment figure dimensions positively affect audience members' upward comparison tendencies.

Effects of upward comparison on two types of envy

The direction in which people perform social comparison is related to their reasons for the comparison. Social comparison is not limited to self-assessment in the absence of "objective, non-social" means of comparison (Festinger, 1954); in many cases, people selectively expose themselves to upward-comparison scenarios because it can elicit self-improvement. Individuals often demonstrate a "unidirectional drive upward," such that they aim to enhance themselves through comparisons with seemingly superior others (Festinger, 1954). This tendency is particularly pronounced among highly motivated people keen on self-improvement (Cramer et al., 2016). Cramer et al. (2016) noted that upward comparison can also increase one's perceptions of personal control and foster hopefulness.

However, Brickman and Bulman (1977) underscored the dual nature of upward comparison, acknowledging its potential for creating discomfort and higher hedonic costs compared with downward comparison. To keep upward comparison from compromising self-satisfaction, people generally home in on their commonalities with superior objects. Viewing these objects as their future selves can even facilitate self-evaluation and self-motivation (Xu et al., 2023). Individuals who engage fairly regularly in upward comparison focus on similarities with superior goals and try to view themselves as part of a superior group (Smith, 2000). Comparators who believe they belong to a superior group spontaneously defend it and feel more prosocial and less aggressive toward it (Xu et al., 2023). The following hypotheses thus apply:

H2: Audience members' upward comparison positively influences their benign envy.

H3: Audience members' upward comparison negatively influences their malicious envy.

Effects of attachment figure dimensions on two types of envy

Numerous factors influence envy. First, an envied person's likeability significantly dictates whether another will experience benign or malicious envy. Benign envy is more likely than malicious envy when an individual has a more positive, stronger relationship with another (Van de Ven, 2016). The environment of Facebook has provided an example: users, when encountering people who appear to be better off than oneself, seem to express benign rather than malicious envy towards individuals with whom users have built stronger connections (Lin & Utz, 2015). Individuals are more inclined to develop

strong affection for and attachment to someone who grants them understanding, support, comfort, and encouragement. Benign envy is a more probable reaction than malicious envy in such instances.

Moreover, the attainability that an envious person perceives crucially shapes envy (Van de Ven et al., 2012). The concept of attainability reflects one's perceived ability to take action in a situation. Benign envy, instead of malicious envy, typically forms when a person believes they can accomplish what envied individuals have achieved. For example, Kim and Chung (2023) confirmed attainability as pivotal in activating benign envy for travel experiences. People who have a secure base feel a heightened sense of control over the exploration process and outcomes. Those perceiving greater control over their circumstances are more prone to benign envy, whereas those perceiving less control are more susceptible to malicious envy (Van de Ven et al., 2012).

Secure attachment relationships additionally correlate with mindfulness, as exemplified by people with higher levels of mindfulness displaying greater cognitive flexibility in reframing hostile thoughts towards others' advantages; malicious envy declines as a result. In essence, by expressing encouragement and support, attachment figure influencers instill hope in their audience regarding goal attainment. Audience members' attention then redirects towards self-improvement rather than the envied individuals. We accordingly speculate that having a secure base will elicit prosocial responses towards information sources, fostering benign rather than malicious envy:

H4: Travel influencers' attachment figure dimensions positively affect audience members' benign envy.

H5: Travel influencers' attachment figure dimensions negatively affect audience members' malicious envy.

Effects of travel envy on audience members' visit intentions

Envy can appear as relentless attempts to elevate one's own status, and both benign and malicious envy drive people to counteract a perceived loss of respect and social standing through distinct approaches (Van de Ven et al., 2009). Benign envy and Machiavellian strategic behavior are correlated: Machiavellian behavior is tied to pragmatic ethics, wherein it is deemed acceptable to find success by any means necessary (Lange et al., 2018). Malicious envy has been shown to correspond to Machiavellian tactics and psychopathic behavioral patterns; impulsive and irresponsible intentions can be deceptive, discourage cooperation, and cause *schadenfreude* when others experience failure (Lange et al., 2018; Moran & Schweitzer, 2008).

Numerous studies have highlighted the distinct effects of benign and malicious envy on consumer behavior. Kim and Chung (2023) documented a positive link between malicious envy and tourists' intentions to visit competing destinations. Ding et al. (2023) pointed out that benign envy directly and positively influences one's intention to engage in conspicuous travel consumption, whereas malignant envy does not have this effect. Xu et al. (2023) determined that benign envy positively affects destination attitude whereas malicious envy exerts a negative impact. Stated formally:

H6: Audience members' benign envy positively influences their visit intentions.

H7: Audience members' malicious envy negatively influences their visit intentions.

Figure 2. depicts the theoretical model guiding our quantitative research.

Method of Study 2

Data collection

Data were acquired through a structured questionnaire to empirically test our proposed framework. The survey was disseminated via WeChat, China's top social media platform. We shared the questionnaire in several travel-oriented WeChat communities whose group members resided in diverse Chinese cities. The potential respondents also spanned multiple income brackets and age demographics. The survey was administered for two months (April 1, 2024–June 1, 2024). Ultimately, 347 questionnaires were valid; respondents' demographic information is summarized in Table 2. The sample included 173 men (49.9%) and 174 women (50.1%). Of them, 176 were between the ages of 18 and 30 (50.5%). Most held a bachelor's degree or higher (69.4%). A majority (72.6%) indicated that their monthly income ranged from 2,000 to 11,000 yuan. The identified social media platforms included WeChat, Weibo, TikTok, and Xiaohongshu—all of which are leading networks in the Chinese market. Other social media platforms were excluded due to their limited user base.

Measures

The survey comprised three parts. In the first section, participants were asked to imagine a scenario: *“You have been busy with work or study recently. Right now, you're in between meetings, and you read a post on your phone about hotel accommodations. Travel posts are posted by a social media blogger you are familiar with.”* Participants were next asked to recall a travel influencer with whom they were familiar and to answer the ensuing questions based on their feelings and impressions of that influencer. This type of prompt has been shown to prime individuals' mental state for upward comparison (Liu et al., 2019). The second survey section contained a series of questions related to our hypotheses. The items have been adapted from scales utilized in prior research but have been modified to align with the specific context and objectives of the present study,

which are more relevant to the domain of travel SMI and tourism. All items were scored on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). The third survey section solicited respondents' demographics (e.g., age, gender, income, education level).

We used existing scales to measure the extent to which audience members perceived travel influencers as attachment figures (i.e., based on sincerity, deservingness, personal attractiveness, and encouragement). Items on sincerity were adapted from Speed and Thompson (2000; e.g., "The content provided by the blogger is what he thinks is truly worth sharing"). Deservingness was measured based on the scales developed by Van de Ven et al. (2012) and Feng et al. (2021) and featured items such as "I think the blogger deserves all the attention he or she enjoys on social media"). The personal attractiveness scale was adapted from Rubin et al. (1985; e.g., "I find the online image of travel blogger to be attractive"). Encouragement was assessed with items adapted from Evans et al. (1997; e.g., "Travel bloggers often make me feel that if I have a goal, I have the confidence to achieve my goal through my own efforts").

Upward social comparison was evaluated with items adapted from Buunk and Gibbons (2006), focusing on comparisons on social media platforms. Their scale has been adopted to examine social media travel envy (Hajli et al., 2018). Benign envy and malicious envy were measured with four items each, adapted from Lange and Crusius's (2015) Benign and Malicious Envy Scale. Those on benign envy included "If I notice that the blogger is better than me in a certain area, I will try to improve myself in that area"; those on malicious envy included "The superior consumption displayed by bloggers makes me feel uncomfortable." Visit intention was evaluated with items adapted from Chen, Shang, and Li (2014; e.g., "If I get the chance to travel, I intend to visit the destination mentioned by the travel blogger on social media").

Results

Statistical analysis

To evaluate our proposed theoretical model, we followed the two-stage structural equation modeling (SEM) approach recommended by Anderson and Gerbing (1988). Data analysis was conducted in AMOS 28 software. SEM consists of two stages. The first stage, which involves confirmatory factor analysis (CFA), is used to evaluate the measurement model. The second stage entails hypothesis testing to validate the associations between latent constructs.

Researchers also need to conduct a series of validity and reliability assessments prior to SEM (Kline, 2005). Cronbach's alpha, a metric indicating a scale's internal consistency,

exceeded the recommended threshold of 0.70 for our study (Nunnally & Bernstein, 1994; see Table 3). This result suggests that our questionnaire possessed sound internal reliability. Additionally, as Table 4 shows, all skewness values were lower than 3 and all kurtosis values were below 8 (Kline, 2005). The distribution of our data therefore displayed univariate normality, making subsequent SEM analyses feasible (Kline, 2005).

Measurement model estimation

We performed CFA to evaluate latent factors' construct validity, reliability, and unidimensionality. We considered five fit indices to ascertain the measurement model's goodness of fit, with each meeting the criteria for an acceptable fit (Kline, 2005; $CMIN/df = 1.067 < 3$, $NFI = 0.927 > 0.9$, $TLI = 0.994 > 0.9$, $CFI = 0.995 > 0.9$, $RMSEA = 0.014 < 0.08$). In accordance with recommendations from Anderson and Gerbing (1988), we also calculated the average variance extracted (AVE) and composite reliability (CR). As listed in Table 3, all constructs' CR values exceeded 0.70, and all AVE values were greater than 0.50 (Anderson & Gerbing, 1988). The square roots of all AVE values also exceeded the correlation coefficients of their corresponding latent variables (Table 5). Our scale thus exhibited adequate convergent and discriminant validity.

Structural model estimation

All hypotheses were supported (see Table 6). Our hypothesized model had an adequate fit to the data ($CMIN/df = 1.169 < 3$, $NFI = 0.918 > 0.9$, $TLI = 0.986 > 0.9$, $CFI = 0.987 > 0.9$, $RMSEA = 0.022 < 0.08$). Specifically, travel SMIs' online attachment figure dimensions positively influenced audience members' upward comparison tendencies (H1: $\beta = 0.551$, $t = 7.347$), lending support to H1. The audience's upward comparison had a positive impact on their benign envy (H2: $\beta = 0.184$, $t = 2.696$) and a negative impact on their malicious envy (H3: $\beta = -0.182$, $t = -2.886$). H2 and H3 were correspondingly supported. Furthermore, travel SMIs' online attachment figure dimensions positively influenced audience members' benign envy (H4: $\beta = 0.602$, $t = 5.504$) and negatively affected audience members' malicious envy (H5: $\beta = -0.707$, $t = -6.560$). H4 and 5 were hence supported. Audience members' benign envy positively affected their visit intentions (H6: $\beta = 0.289$, $t = 4.372$), whereas their malicious envy negatively affected such intentions (H7: $\beta = -0.313$, $t = -4.659$). H6 and H7 were thus supported. Given the importance of control variables in isolating the effects of independent variables and yielding more accurate results, we re-tested our hypotheses while controlling for gender, age, education level, and monthly income. All results remained significant. Our theoretical model therefore had relatively broad applicability.

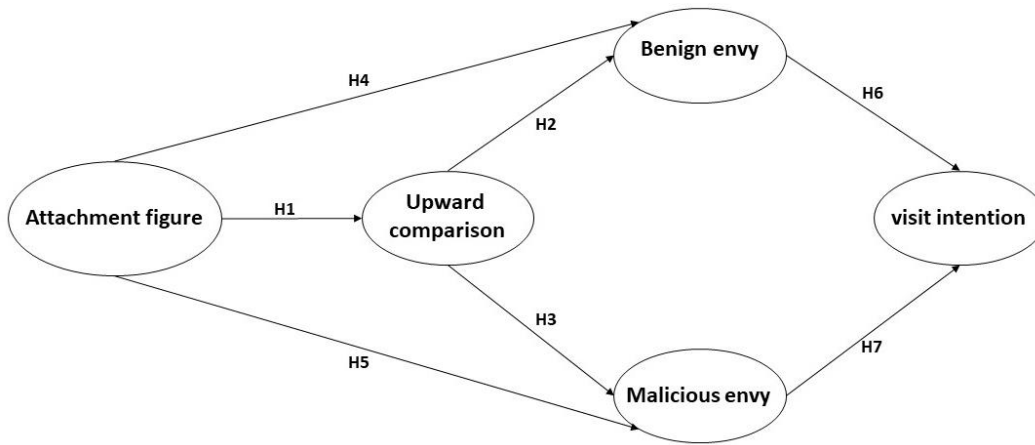


Figure 2 Theoretical model

Category		<i>n</i>	Frequency
Gender	Male	173	49.9%
	Female	174	50.1%
Age	18–25	70	20.2%
	26–30	106	30.5%
	31–40	63	18.2%
	41–50	59	17.0%
	51–60	41	11.8%
	Above 60	8	2.3%
Education	Below high school	24	6.9%
	High school	82	23.6%
	College/university	218	62.8%
	Graduate school	23	6.6%
Monthly income (RMB)	Less than 2,000	36	10.4%
	2,000–5,000	133	38.3%
	5,000–8,000	82	23.6%
	8,000–11,000	37	10.7%
	11,000–14,000	31	8.9%
	14,000–17,000	16	4.6%
	17,000–20,000	6	1.7%
	More than 20,000	6	1.7%

Table 2. Respondents' demographics.

Construct	Items	Mean	Standard deviation	Cronbach's α
Sincerity				0.87
	V1: What the blogger shares is what he or she believes is really deserves sharing.	4.46	1.641	
	V2: This blogger would be likely to have the interests of the audience at heart.	4.46	1.654	
	V3: This blogger values improving the quality of the content he or she shares.	4.53	1.671	
	V4: I believe that the blogger will continue to operate his social network even if he or she doesn't get a lot of revenue.	4.51	1.668	

Deservingness				0.86
	V5: I believe that this blogger through his or her own efforts to win the current achievement.	4.48	1.649	
	V6: I have witnessed the growth that bloggers experience along the way.	4.43	1.649	
	V7: I know the blogger overcame many difficulties to get today's achievements.	4.49	1.671	
	V8: I think a blogger deserves all the attention he or she gets on social media.	4.53	1.631	
Personal Attractive				0.85
	V9: I think this travel blogger is a very attractive person.	4.49	1.613	
	V10: I think this travel blogger is a natural, down-to-earth traveler.	4.52	1.538	
	V11: I feel like this travel blogger is an old friend of mine.	4.57	1.583	
	V12: This travel blogger is a responsible traveler who respects the destination.	4.57	1.570	
Encouragement				0.85
	V13: If I have a goal, I have the confidence to achieve my goal through my own efforts.	4.53	1.593	
	V14: When things don't go well, I don't feel sorry for myself.	4.48	1.559	
	V15: Even if things don't go well, I believe I can get the situation back under control through my efforts.	4.47	1.650	
	V16: I am willing to accept a certain degree of change in myself to pursue a better life.	4.60	1.626	
Upward comparison				0.87
	V17: In general, I feel that the blogger's life is better than mine.	4.26	1.728	
	V18: Travel bloggers share photos and videos that show a more exciting life than mine.	4.31	1.605	
	V19: Travel bloggers get more attention than I do.	4.26	1.698	
	V20: The blogger showed a higher consumption than I did.	4.41	1.636	
Benign envy				0.86

	V21: The superior performance of bloggers makes me think, how can I achieve the same success as them in the future.	4.44	1.623	
	V22: If I notice that they are better than me in a certain area, I will try to improve myself in that area.	4.35	1.649	
	V23: Being aware of the blogger's success motivates me to accomplish the same goal.	4.45	1.660	
	V24: I strive to achieve the same achievements as a blogger.	4.40	1.612	
Malicious envy				0.88
	V25: Some of the advantages that bloggers display make me uncomfortable.	3.61	1.597	
	V26: Bloggers display certain strengths that make me dislike them.	3.47	1.647	
	V27: I hope the blogger lose his or her advantages.	3.47	1.592	
	V28: When a blogger has something I don't have, I want the blogger to lose that.	3.51	1.642	
Visit intention				0.83
	V29: If this blogger mentions a destination, I will want to go to that destination.	4.49	1.619	
	V30: If I have a chance to travel, I plan to go to the destination mentioned by this blogger.	4.49	1.592	
	V31: When I plan to travel, I will most likely consider going to the destination mentioned by the blogger.	4.47	1.668	

Table 3. Descriptive statistics and reliability of variables.

	Standard factor loading	S.E.	<i>t</i> value	Average variance extracted	Composite reliability	Skewness	Kurtosis
Sincerity				0.63	0.8709		
V1	.76					-.104	-.834
V2	.79	.063	15.06***			-.012	-.978
V3	.77	.064	15.81***			-.111	-.881

	Sincerity	Deservingness	Personal Attractiveness	Encouragement	Upward comparison	Benign envy	Malicious envy	Visit intention
Sincerity	0.79							
Deservingness	.52**	0.78						
Personal Attractiveness	.53**	.60**	0.76					
Encouragement	.53**	.52**	.54**	0.77				
Upward comparison	.43**	.42**	.35**	.40**	0.79			
Benign envy	.38**	.39**	.33**	.42**	.43**	0.78		
Malicious envy	.48**	-.48**	.44**	.40**	.48**	.51**	0.80	
Visit intention	.44**	.46**	.40**	.37**	.46**	.41**	.41**	0.79

Note: Values on the diagonal denote square roots of AVE values; off-diagonal values are estimates of inter-correlations between latent constructs.

Table 5. Correlation estimates and average variance extracted (AVE).

Hypothesis		B	S.E.	C.R.	Result
H1	Travel influencers' attachment figure dimensions positively affect audience members' upward comparison tendencies.	0.551***	0.104	7.347	Supported
H2	Audience members' upward comparison positively influences their benign envy.	0.184***	0.068	2.696	Supported
H3	Audience members' upward comparison negatively influences their malicious envy.	-0.182**	0.063	-2.886	Supported
H4	Travel influencers' attachment figure dimensions positively affect audience members' benign envy.	0.602***	0.109	5.504	Supported
H5	Travel influencers' attachment figure dimensions negatively affect audience members' malicious envy.	-0.707***	0.108	-6.560	Supported
H6	Audience members' benign envy positively influences their visit intentions.	0.289***	0.066	4.372	Supported
H7	Audience members' malicious envy negatively influences their visit intentions.	-0.313***	0.067	-4.659	Supported

Note: * $p < 0.05$; B = standardized estimates.

Table 6. Hypothesis testing results.

General discussion

Consumers' perceptions of travel SMIs play a crucial role in destination marketing (Masuda et al., 2022). Our findings reveal that audience members can experience positive emotions when interacting with these influencers, perceiving them as advisors, sources of comfort, or even role models. In Study 1, we explored the development of

online attachment between travel SMIs and their audiences, identifying four key dimensions of travel SMIs as online attachment figures: the influencer's sincerity, deservingness, personal attractiveness, and encouragement. In Study 2, we utilized these four dimensions as sub-dimensions of the online attachment figure and found that they effectively facilitated the audience's intention for upward comparisons. Remarkably, audiences generally expressed benign rather than malicious envy after this comparison process.

Theoretical contributions

Our work makes two types of theoretical contributions. The first pertains to the nature of travel SMIs themselves. Research on these influencers suggests that their marketing potential lies in their ability to use charisma to attract audiences with diverse hobbies and personalities. Although these influencers are increasingly relevant to the modern digital landscape, there has been little research focused on a comprehensive framework to describe their roles and functions (Maggiore et al., 2022). To address this gap, we applied attachment theory. We identified four dimensions that inform viewers' responses to travel influencers.

The first dimension is the influencer's sincerity, signified by the audience's perceptions of the influencer's motivation for sharing information. Travel SMIs who pander to the audience, boast, or show financial motives are often seen as intruding on the audience's autonomy, leading to perceptions of insincerity. Conversely, those who display a genuine attitude, offer detailed content, and communicate logically and critically are viewed as more sincere. Self-disclosure and a good online reputation further enhance perceptions of sincerity. Audiences assess sincerity through verbal and nonverbal cues, consistent with the findings of previous research (Lin et al., 2022).

The second dimension is the travel influencer's deservingness. Influencers are seen as opinion leaders with significant influence over social media users. Audiences expect these influencers to have the skills and experience that justify their influential and privileged positions. Capable and reliable travel SMIs provide practical and psychological support for audiences' future exploration. Observing an influencer's personal growth, rooted in emotional, critical, and reflective learning (Bosangit & Demangeot, 2016), encourages audience members to view the influencer as a role model and inspires them to explore independently. Consequently, viewers' intrinsic motivation for adventure grows. The competence and deservingness of travel influencers are essential for building psychological attachment with their audiences.

The third dimension is the travel influencer's personal attractiveness, which corresponds to engaging and virtuous traits (e.g., conservation of the destination environment, respect for local customs, helping others during a journey, experiencing a journey in a creative way, and being passionate about adventure and the unknown). Positive, altruistic, responsible actions collectively frame an influencer as an attachment figure for audience members. Viewers then realize they can rely on and trust the person, thus feeling safe and assured.

Encouragement represents the fourth dimension for travel influencers as attachment figures. Feeney and Thrush (2010) pointed out that an attachment figure's behaviors and attitudes which support independent exploration can drive people to adopt a more positive self-concept and recognize their own potential. Offering encouragement entails inspiring or helping others, especially in fostering the belief that they can find solutions and surmount obstacles (Sweeney & Adlerian, 2009). Individuals can then participate more actively in self-development and personally challenging activities.

Our second major theoretical contribution comes from taking travel influencers as attachment figures to examine the link between upward comparison and envy. We considered potential travelers' willingness to conduct upward comparison with an attachment figure's support. An attachment figure's presence initiates a "broaden and build" cycle of attachment security. This cycle boosts one's resilience; widens their perspectives; and nurtures their adaptability and skills (Fredrickson, 2001). Various positive feelings (e.g., joy, interest, contentment, pride, and love) can expand one's immediate thought-action repertoires and cultivate enduring personal resources, which include physical, intellectual, social, and psychological assets (Fredrickson & Branigan, 2005).

We also found that support from an attachment figure promotes prosocial envy (i.e., benign envy). Evidence from Fraley and Shaver (2000) substantiates this notion in that people with secure attachment styles exhibit greater resilience and adaptive coping mechanisms in the face of adversity compared to people with insecure attachment styles. Attachment theory states that individuals who perceive their attachment figures as dependable and supportive tend to have higher self-esteem. Securely attached people additionally view themselves as worthy and lovable (Mikulincer & Shaver, 2007). This higher self-esteem facilitates more positive appraisals of envied individuals' success, leading to benign envy.

Correspondingly, support from an attachment figure was shown to inhibit malicious envy among audience members. People with secure attachment exhibit higher self-efficacy and

more robust emotional regulation skills. Attachment security helps generate a positive self-concept and enables individuals to accept and incorporate their flaws into a generally coherent and affirmative self-image (Berant & Baumel, 2017). These people are better equipped to manage feelings of inadequacy and threat, thereby reducing the likelihood of experiencing malicious envy. Secure attachment also serves to sustain one's emotional stability in times of stress and eases negative emotions (e.g., anger, anxiety, and sadness; Bowlby, 1982). By contrast, anxiously attached people doubt their self-value (see [Mikulincer & Shaver, 2007, for a review]). We determined that the positive feelings travel SMIs (as attachment figures) can arouse foster benign envy and act as a buffer against malicious envy by enhancing viewers' emotional resilience.

Practical contributions

This research offers practical implications for professionals in the tourism industry. They are encouraged to consider hiring travel SMIs for online promotion. These influencers can showcase the unique features and attractions of a location or hotel through engaging content, vivid imagery, and personal experiences, thereby garnering attention and interest among potential visitors. Zhang & Huang (2022) investigated a viral marketing case, discovering that marketers who seized a viral tourism marketing opportunity and featured an influencer as the protagonist could significantly enhance public interest in the destination. In another instance, Tourism New Zealand (TNZ) partnered with Chinese travel influencers, live-streaming a tourism promotion on Weibo, which reached 1.6 million viewers and gained many followers and potential visitors (Whiddington, 2020).

Consumers' positive perceptions of travel SMIs are crucial for destination marketing, particularly when an emotional bond is established. For destination marketers, four key dimensions—sincerity, deservingness, personal attractiveness, and encouragement—are essential for selecting suitable influencers. First, it is important to prioritize influencers known for authentic storytelling and genuine audience interactions, ensuring they transparently disclose partnerships and consistently share content that reflects their true experiences. Second, deservingness should be assessed by evaluating influencers' expertise and knowledge in the travel sector, as demonstrated by their previous content and insights. Third, marketers should seek influencers with natural charm and appeal to enhance their storytelling effectiveness. Finally, collaboration with influencers who foster encouragement through their narratives can inspire audiences to pursue their travel aspirations. These dimensions ensure that the content shared by influencers activates upward comparison, resulting in benign rather than malicious envy.

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Guest-Host Interactions in B&B Online Reviews: *An Attachment Theory Perspective*

Introduction

Higher levels of host-guest interaction often lead to meaningful and memorable connections, thereby enhancing the overall tourist experience (Kaniadakis & Farmaki, 2022; Xue, Leung, & Ma, 2022). The relationship between hosts and guests has been extensively studied, particularly in the context of bed and breakfast (B&B) accommodations (Li, Wang, Li, & Cai, 2023; Wu, Han, & Moon, 2023; Tao, Deng, & Sun, 2024). The personal and intimate nature, friendly and private atmosphere, and the encouragement of engagement with the local environment and culture of B&Bs (Nuntsu et al., 2004) facilitate interactions between hosts and guests, thereby enhancing the guests' sense of belonging and connection to the local area. These interactions are a significant component of the overall tourist experience, making them an integral part of the B&B's appeal (Farmaki, Christou, & Saveriades, 2020). Central to these co-created experiences, B&B hosts provide guests with a deep sense of immersion in local culture and community through frequent and meaningful interactions (Camilleri & Neuhofer, 2017; Lynch, 2005).

The role of the B&B host extends beyond merely providing accommodation. Individuals have an innate tendency to seek trustworthy others who can offer comfort and security, especially in unfamiliar environments (Bowlby, 1982). Attachment theory identifies such trusted individuals, who provide a sense of security in specific contexts, as attachment figures. Trustworthy B&B hosts are reported to support guests' travel plans, attend to their needs for food, accommodation, and transportation, and respond promptly to guests' requests, which aligns with the functions of an attachment figure (Lynch, 2005). According to attachment theory, people with secure attachment relationships experience reduced anxiety and are more likely to engage in exploratory behavior (Shaver & Mikulincer, 2007). Therefore, we speculate that if the host acts as a source of security and interpersonal support, it can foster a sense of security among guests, promoting exploration of the destination, deeper engagement with the local environment, and increased overall well-being. Introducing attachment theory into guest interaction research enriches the discourse on how interaction enhances attachment security and safety perceptions, further advancing the study of exploratory behavior.

To address this research gap, the present study investigates consumer reviews of B&B accommodations on tourism platforms. Online travel agencies often provide a platform

for tourists to share their experiences and opinions about B&Bs through online reviews (Martin-Fuentes et al., 2020). These reviews are recognized as important sources of information for potential consumers, travel industry practitioners, and researchers (Yang, Park, & Hu, 2018). The study has two main objectives: (1) to visualize and analyze the key content of these reviews to identify the attributes that positively impact consumer experiences, and (2) to summarize effective host-guest interaction modes and explore how these interactions influence consumer emotions and experiences. By examining the dynamics of host-guest interactions, this study aims to develop a theoretical model that explains the nature and impact of these interactions within the B&B context. This analysis seeks to enhance the understanding of B&B accommodation experiences and offer insights that could improve the appeal and quality of B&B services.

Literature review

Host-guest interaction in B&B

The social benefits derived from B&B accommodations are highly valued by modern visitors. The formation of interpersonal relationships between hosts and guests is a continuous and dynamic process, involving self-disclosures and reciprocal behaviors such as sharing information, emotions, and activities (Taylor, 1968). B&Bs foster social interactions between hosts and guests and offering distinctive experiences (Tussyadiah & Pesonen, 2016; Guttentag & Smith, 2017). They excel in delivering serendipity, locality, community, and personalization—key aspects of the “social interaction” element sought by consumers (Cheng, 2016; Mody et al., 2017). Meaningful and immersive interactions between hosts and guests, emphasizing deep engagement within a home setting (Pearce & Wu, 2017). Through enhancing tourists’ cognitive and emotional experiences, host-guest interaction can encourage active community participation, revitalizing lesser-known neighborhoods (Lalicic & Weismayer, 2017).

Interaction between hosts and guests fosters the exchange of cultural and lifestyle values, along with shared joy (Schuckert et al., 2017). High-quality host-guest interactions promote value co-creation, leading to genuine and memorable travel experiences for tourists (Lyu et al., 2019; Sthapit et al., 2019). These engagements allow guests to explore destinations authentically and break away from their regular interpersonal relationships (Guttentag et al., 2018; Lin et al., 2019). According to Pera et al. (2019), lower social distance in peer-to-peer (P2P) accommodations fosters empathy, reducing the likelihood of negative reviews. Research indicates that hosts’ helpful behaviors significantly enhance the overall satisfaction of visitors (Lyu et al., 2019; Sthapit & Jimenez-Barreto, 2019), which in turn influences word-of-mouth, recommendation intention, and loyalty towards P2P accommodations (Moon et al., 2019).

Recently, the significance of host-guest interactions in accommodations has been questioned by both tourism experts and researchers. Some scholars suggest that when selecting accommodations, guests may prioritize other factors over social interactions (Cheng & Jin, 2019). Many professional hosts employ real estate agents to manage their properties, strictly adhering to standardized management practices that minimize host-guest interactions (Farmaki et al., 2019; Lin et al., 2019). As a result, some guests have noted that their interactions with hosts are minimal (Cheng & Jin, 2019). The current B&B accommodation sector lacks standardized practices, and the roles and responsibilities of hosts during guest interactions remain undefined (Farmaki et al., 2019; Wu et al., 2023). Therefore, it is essential to evaluate host-guest interactions and understand their importance in shared accommodation settings. Currently, a structured model outlining how hosts can engage with guests, facilitate their exploration within the B&B, enhance their travel enjoyment, and improve the efficiency of exploration is still lacking.

Attachment Theory

Attachment theory (e.g., Bowlby, 1982; Mikulincer & Shaver, 2012) provides a framework for understanding the enhancement of security and attachment in interpersonal interactions. Bowlby (1982) defined attachment as a deep and enduring emotional bond that links individuals across time and distance. Enhanced secure attachment perception leads to psychological benefits, including reduced defensiveness, increased authenticity, and the promotion of prosocial behaviors. Evidence shows that proximity and access to affectionate, trustworthy, and supportive people are lifelong, functional, and essential human needs. Researchers (e.g., Ainsworth, 1991; Hazan & Zeifman, 1994) contend that attachment theory is relevant to any adult bond that meets three conditions: staying close, offering a safe haven, and serving as a secure base. During threats and exploratory tasks, individuals often exhibit behaviors aimed at drawing closer to “stronger and wiser” caregivers, known as attachment figures (Bowlby, 1982). Attachment figures have been identified as serving two core functions: the ‘safe haven’ and the ‘secure base,’ which operate in different contexts.

Safe haven refers that when an individual feels threatened or distressed, they can seek comfort from their attachment figure. According to attachment theory, interactions with secure attachment figures reduce distress, and elicit positive emotions such as relief, satisfaction, and gratitude (Shaver & Mikulincer, 2007). In studies related to tourism and hospitality, tourists’ worries regarding property and security threats are extensively covered (Fuchs and Pizam, 2011; Quintal et al., 2010). These perceived risks among tourists include various categories such as personal security (Liu and Gao, 2008), loss of property (Dolnicar, 2005), criminal activity (Maser and Weiermair, 1998), terrorist incidents (Law, 2006), and natural catastrophes (Fuchs and Reichel, 2011). Tourists’ perceptions of risk are commonly tied to feelings of fear, anxiety, worry, and nervousness

(Fuchs et al., 2013; Reichel et al., 2007; Wolff et al., 2019). Distress and threat increase the likelihood of seeking proximity to the attachment figure (Brooks & Lewis, 1974; Bowlby, 1982). Safe havens can offer a respite where tourists can relax and feel protected, which is vital when navigating new and potentially overwhelming environments. For example, individuals who have optimism bias think they are less susceptible to illness than others (Sharot, 2011; Brewer et al., 2007).

Second, the secure base function of attachment figure comes into play as individuals explore the world and focus on achieving personal growth (Bowlby, 1988; Donations, 2007; Waters & Cummings, 2000). The secure base encourage partners to pursue new experiences, fostering inquisitiveness, intellectual flexibility, and focused awareness (Carnelley & Ruscher, 2000; Stevenson et al., 2017). Previous research indicates that Travel constraints hinder tourists' participation and enjoyment (Huber et al., 2018). Participation in leisure activities often involves overcoming intrapersonal constraints such as stress, depression, anxiety, and personal skills that affect leisure preferences, interpersonal constraints arising from a lack of suitable companions, and structural constraints including financial and time-related costs, difficult-to-access facilities, and insufficient information (Crawford et al., 1991). While, social support significantly enhance leisure participation. Support from partners, family, and friends increases leisure involvement across various demographic groups, including mothers with young children, older adults, and those engaged in physical activities (Brown et al., 2001; Sasidharan et al., 2006; Orsega-Smith et al., 2007). Social support is also linked to higher self-efficacy in leisure activities (Orsega-Smith, Payne, & Godbey, 2003; Sasidharan et al., 2006).

Attachment figures may play an indispensable role in the travel experience. In management literature, researchers have found that leaders can serve as attachment figures for their followers, boosts their self-confidence, independence, innovation, and overall well-being, significantly impacting group performance (Davidovitz et al., 2007; Mayseless, 2010; Mayseless & Popper, 2007). However, the role of attachment figures in a guest's B&B stay experience has not been thoroughly investigated. While place attachment is a well-established concept in tourism literature (Lewicka, 2011), attachment theory has seen limited application in tourism research outside of this context. Paulssen (2009) highlights the need to explore attachment-based concepts within the context of commercial relationships. This study incorporates attachment theory into research on host-guest interactions, enhancing the discussion of how attachment interactions improve guests' exploratory behavior.

Online review of accommodations

The significance of online consumer reviews has grown substantially within the tourism and hospitality sectors. Due to the intangible and perishable nature of tourism services,

consumers often struggle to assess service quality prior to experiencing it (O'Connor, 2010; Yang, Mueller, & Croes, 2016). This inherent uncertainty in decision-making amplifies the need for reliable and valuable information when choosing travel options (Liu & Park, 2015). Research by Dickinger (2011) suggests that reviews from fellow travelers are frequently perceived as more current, informative, and trustworthy compared to the promotional content from service providers. Reading such reviews helps potential customers evaluate service quality and form impressions (Filiari, 2016). The quantity of reviews, whether positive or negative, tends to enhance customer judgment (Babić Rosario, Sotgiu, De Valck, & Bijmolt, 2016). This phenomenon aligns with the bandwagon effect, where individuals mimic others' behaviors to mitigate personal risk (Van den Bulte & Lilien, 2001; Iyengar et al., 2012).

Service providers are increasingly utilizing online reviews as marketing tools, encouraging consumers to share their experiences (Litvin & Dowling, 2018). Extensive research has explored the impact of electronic word-of-mouth on hotel performance. Ogut & Tas (2012) found that customer ratings enhance hotel performance and influence room pricing (Nieto, Hernández-Maestro, & Muñoz-Gallego, 2014). For researchers, online reviews of travel platforms are considered to be a source of real and reliable consumer opinions (Simms, 2012). Prior studies have highlighted key aspects of consumer reviews that are crucial for understanding accommodation services and guest satisfaction (e.g., Xiang, Schwartz, Gerdes, & Uysal, 2015; Zhou, Ye, Pearce, & Wu, 2014). Researchers can start with data collection, then analyze and gain insights, and this backward working approach allows it to avoid as much as possible pre-figuring theories and assumptions about possible experiences (Goddard and Melville, 2001). This study utilizes big data from homestay reviews on travel platforms, addressing challenges associated with sample representativeness (Mariani et al., 2018) by encompassing the entire relevant population (Gerard et al., 2016).

Method

Quantitative content analysis methods are commonly used by researchers to process large datasets and capture major claims from true travel experiences (Banyai & Glover, 2012). However, there are concerns that quantitative methods may not effectively extract deeper, more detailed information from texts (Banyai & Glover, 2012; Belarmino et al., 2019) and lead researchers to lose sight of "real life" and actual events (Hookway, 2008), and taking words or phrases out of context can result in meaning loss or misunderstanding (Banyai & Glover, 2012). User-generated information is a rich and complex bundle of information that reflects the traveler's discrete experiences and evaluations (Hemmatian & Sohrabi, 2017; Xiang et al., 2015). Narrative analysis can partially address the limitations of automatic text mining. Storytelling is crucial for forming and negotiating personal identities (Crossley, 2000). Researchers have previously combined automatic text mining with qualitative methods to gain in-depth insights from diverse text content.

To avoid bias from using a single method, our research integrates manual textual analysis with automatic big data analysis. We have designed a data analysis process, illustrated in Figure 1.

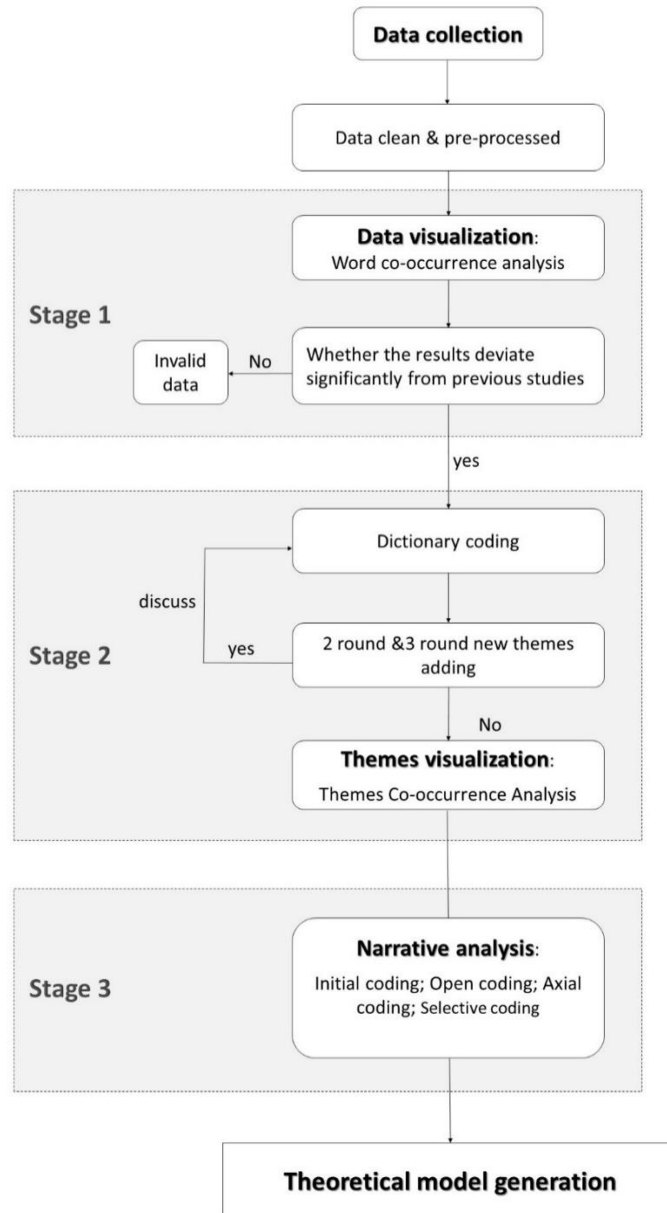


Figure.1. Data analysis process

Data collection

Qunar.com is particularly popular among young people, with core users aged 25-35, and Generation Z being the fastest-growing user group, making it the top platform among

college students (Qunar.com). Additionally, the platform offers a vast array of user-generated content, including reviews of hotels, restaurants, attractions, and travel tips. To study the characteristics of successful services, we screened 106,942 reviews (the reviews with the highest ratings). Since Qunar has categorized accommodation types, we can easily search for B&B accommodations related reviews.

Data pre-process

To analyze the extensive textual dataset, the text analytics software KH Coder (Higuchi, 2016, 2017) was utilized. First, the original text corpus needs to be preprocessed for the next analysis, the Stanford POS tagger is used at this stage. Preprocessing consists of four steps. The goal is to break down consecutive sentences into words and phrases, and eliminate nonsense words in order to satisfy the extraction and categorization of comment content that follows. The initial step is tokenization, which involves dividing sentences into words, phrases, symbols, and other meaningful components. The second step is to exclude meaningless and context-independent words from the data set, such as definite or indefinite articles and auxiliary verbs, including “a”, “an”, “the”, etc. The third step is part of speech (POS) tagging, which assigns each word a part of speech, such as noun, verb, adjective, etc., according to its definition and context. The final step is lemmatization, conflating tokens to their root form. Because the data set in this study is in Chinese, the last step is not involved.

Data analysis

Stage1

First, we extracted the main attributes from a large number of comments through a computer software program and presented them visually to obtain a bird's eye view of the data set. This preliminary descriptive analysis of the data, when compared with established attributes found in hotel literature, allows us to gain further insights by recognizing both the similarities and distinctions. Co-occurrence analysis, a widely employed content analysis method, identifies the relationships between concepts, ideas, and issues by analyzing the co-occurrence patterns of word pairs in text corpora (He, 1999; Kim et al., 2017). The result is presented as a network diagram of nodes (words) and edges (connecting co-occurring word pairs). In KH Coder, the connection between two nodes is determined by the Jaccard Similarity of word pairs and the display of a word co-occurrence network is influenced by factors such as word type, minimum term frequency, and edges (Santisteban & Tejada Carcamo, 2015). Word selection for co-occurrence network analysis is based on part-of-speech and a minimum term frequency, which is suggested to be set in multiples of 5 (Higuchi, 2017, p.44). In this research, the software depicts the co-occurrence network of nouns and adjectives.

Stage2

The second stage is to extract the main affective and behavioral patterns of the hosts-guests interaction in the comments. Then, a themes co-occurrence network is generated according to the theme lexicon to show the potential relationship between the themes. All techniques utilized for opinion mining can be broadly classified into two primary categories: lexicon-based methods (Brandes, 2001; Daud et al., 2017) and machine learning techniques (Leclerc & Martin, 2004; Weiler, 2002; Weiler & Walker, 2014). Considering that in the dynamic service process, the interactions between service providers and consumers are changeable, multi-factor, and discrete. The manual data processing can provide a more delicate and accurate host-guest interaction lexicon, and increasing the generality of lexicon. Since there is no mature host-guest interaction lexicon to refer to, this study adopted multiple rounds of manual iteration to increase accuracy.

The first researcher read from the first review one by one. The focus is on identifying key words that represent the service itself and the service-related narrative, based on the consumer statement. And the parts of speech of key words are defined as verbs, nouns, adjectives and adverbs. After the keywords are extracted, they are divided into different themes according to the principle of whether they express similar meanings. The theme repeats from review 2000, and no new keywords appear. The first researcher coded another 1,000 reviews to make sure no new themes or keywords appeared. After completing the first round of coding, two other researchers randomly selected 1,000 reviews each, starting with review 3000, and coded them. No new themes and keywords were found in the second and third round of coding. Since then, the research has ensured that the manual themes mining has covered all the key information, and the B&B service feature dictionary has been generated. Through a systematic coding process, the narrative of host and guest interaction in reviews is summarized into a series of themes, and finally a host-guest interaction lexicon is generated. KH coder conducted co-occurrence analysis of the themes in dictionary to present the frequency of each theme and the relationship between them.

Stage3

The third stage is narrative analysis. The stories narrated by the guests spontaneously are placed at the center of the analysis. We referred to the analysis process of Mura (2015), Special attention was paid to the internal structure of the stories, the different types of narrative frameworks, the main characters, the language used to depict events and individuals, and the similarities and differences among the narratives. Given the huge number of reviews, it would be difficult to manually code the entire content. This study is coded by ranking comments from highest to lowest word count. Because of the consideration that more words contain a more complete narrative structure. The

researchers coded and categorized the comments one by one until no new patterns of host-guest interaction were found. This analysis is conducted within an interpretivist framework, which assumes that the meanings embedded in each narrative are not fixed but are continuously (re)produced and (re)interpreted by the readers (Denzin and Lincoln, 2008; Denzin and Lincoln, 2011).

Results

Results of stage 1: word co-occurrence network

The word frequency is shown in table 1. As shown in figure 2, the adjective 'good' has the highest frequency (frequency, 54448), indicating that the main content of consumer reviews is the positive experience during the stay. Around the word 'good' is a range of positive accommodation experiences that consumers focus on. As shown in Figure 2, around 'good', there are five main word groups: 'room ', 'service ', 'boss', 'environment ' and 'experience '. This shows that the majority of positive comments are mainly concerned with these areas. According to Table 1, the words 'room ', 'service' and 'boss' have the highest frequency, which proves that these three factors are the most important factors influencing consumers' positive evaluation.

The most important aspect is the word group with 'room (frequency, 52677)' as the core (green word group), which covers the core of B&B consumption. In addition to the 'room', according to the Figure 2, words related to service (purple) and service staff (bright yellow) were also discussed repeatedly in the reviews, indicating that service quality and the performance of service providers are the core factors that impact consumer satisfaction. 'Thoughtful (frequency, 6626)' and 'enthusiastic (frequency, 14911)' are both high frequency words to describe service. In addition, the word group related to 'breakfast' is indirectly linked to 'host' through 'homestay'. This reflects the fact that consumer reviews of breakfast always mention the host. This further illustrates the important position of service providers in B&B services.

8	Location	12535	satisfaction	10766	23	price	5164	spacious	3397
9	Facility	11322	comfortable	9316	24	nearby	5163	The same	3111
10	Host	10755	well-equipped	8611	25	Front desk	5094	nice	2386
11	Transportation	8159	Great	7268	26	praise	4808	more	2201
12	Cost performance ratio	8046	big	7227	27	Subway station	4626	benefit	2082
13	experience	8022	thoughtful	6626	28	place	4506	beautiful	1807
14	friend	7651	close	6253	29	nearby	4439	good-looking	1774
15	attitude	7565	high	5874	30	sisiter	4322	rich	1702

Table 1. Word frequency

Results of stage 2: theme co-occurrence network

Figure 3 and 4 are both theme co-occurrence networks. Figure 3 distinguishes different subgroups with different colors, and Figure 4 distinguishes the centrality of different themes according to the colors. Two figures visually present the core characteristics of satisfying p2p services. As can be seen from the two figures, 'good', 'host' and 'service' are the themes with the highest frequency and centrality, which is also consistent with the word co-occurrence network in Figure 2. The rest of the subgroups are distributed around the two central themes — 'host' and 'service'.

Firstly, the subgroup surrounding 'service' occupies a large area in the co-occurrence network. The service was described as 'meticulous', 'thoughtful', 'satisfactory' and 'considerate'. These words were mentioned frequently in the reviews, reflecting that thoughtful, and consumer-centered services are favored by consumers. As a phrase, "service attitude" is often used by consumers in reviews, indicating that in addition to the service quality, the attitude of service personnel is also considered important. It is worth noting that, 'touching' connected with 'considerate'. Consumers feel touched and warm when the service not only meets their basic expectations, but also shows sincere care for them. According to the red areas in Figure 3, the themes that occur with 'touching' include meeting the needs of the guests as much as possible, waiting for the guests for a long time, and giving the guests the feeling of being with family and friends.

Another subgroup associated with 'service', shown in yellow part in figure3, concentrates the evaluations of service personnel other than hosts. The 'receptionist' gives the impression of gentleness, politeness, and physical attraction. 'Drivers' were associated with humor and friendliness. We found that many p2p accommodation provide pick-up service. During the driving, drivers interact and communicate with consumers a lot. Friendliness and humor usually bring good experience to consumers. We also found that personnel are often referred to by consumers as 'buddy', 'sister', 'uncle' or 'aunt'. This is

what people call friends or relatives in private way. 'Personnel' and 'affability' are connected in a co-occurrence network. All of these indicate that in p2p accommodation consumption, service providers are regarded as close friend and family. Consumers and service personnel share closer psychological distance.

The orange and teal green subgroups in Figure 3 are a series of consumer evaluations and perceptions for host. A large portion of consumer reviews are about their interactions with hosts. The orange part in Figure 3 are some comments and feedback on the host. The main comments were 'enthusiastic' and 'nice person'. Also, 'host' is linked to 'next time'. And 'next time' is linked to 'happy'. This proves that impressive host-guest interaction is the most likely to stimulate consumers' pleasant perception and willingness to visit again.

The turquoise portion of Figure 3 contains more details about the service process related to the host. According to figure 4, the centrality of "offering help" is high, indicating that the host-guest interaction often involves the host providing help or solving problems for the consumer. The two main themes associated with 'offering help' are 'quick response' and 'gratitude'. This shows that hosts are prompt, proactive and attentive to consumers' needs and feelings in the process of solving problems for consumers. 'Gratitude' means that guests recognized and appreciated the hard work and effort of the host. The 'gratitude' are also associated with 'willingly bear the burden of hard works', 'caring', 'gifting' and 'remote communication' respectively.

'Remote communication' and 'question answering' are also important parts of the service. Advance online communication extends the service time, provide more value for consumers, including helping consumers to increase their understanding of host and eliminate their anxiety about travel. In offline face-to-face communication, in addition to answering consumers' questions, emotional communication is more important. Through the disclosure of self-information and emotional resonance, hosts and guests can develop a social relationship beyond the commercial relationship and obtain emotional satisfaction during travel. It's also part of a move beyond traditional accommodation.

Overall, we found that guests perceive B&B hosts and other staff as considerate, attentive, responsive, and often view the hosts or other staff members as friends and family, which suggest that B&B hosts and other staff members may function as attachment figures. According to attachment theory, the traits of an attachment figure include authenticity, supportiveness, responsiveness, the ability to attract relationship partners to remain close, and the provision of comfort and protection (Mikulincer & Shaver, 2007; Feeney & Thrush, 2010). And also, the term 'host' often associated with 'next time,' aligning with attachment theory, which posits that individuals tend to

maintain intimacy with their attachment figures and resist separation, or seek reconnection after experiencing separation, observations that are consistent with the development of attachment relationships; overall, the development of attachment relationships is a crucial aspect of guest interactions and a significant component of positive B&B accommodation experiences.

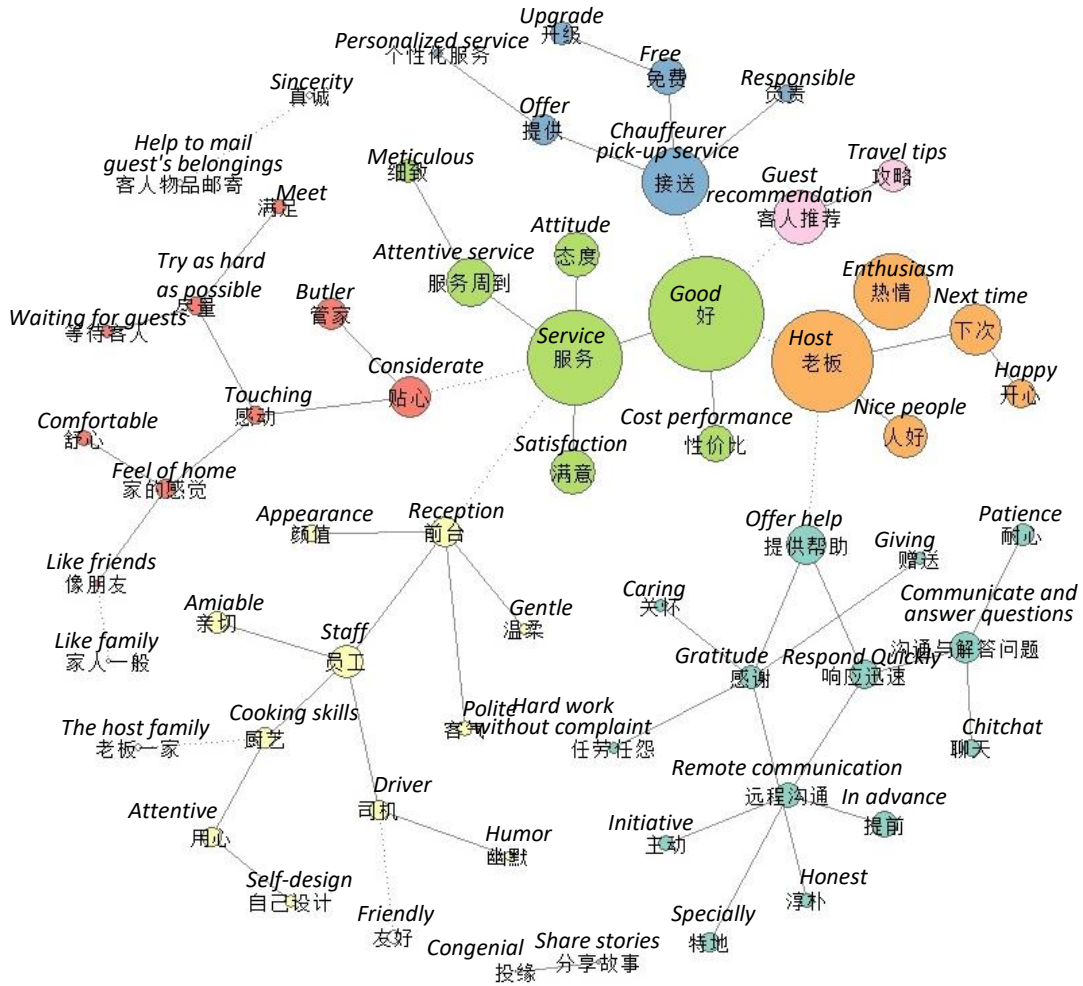


Figure 3. Theme co-occurrence networks

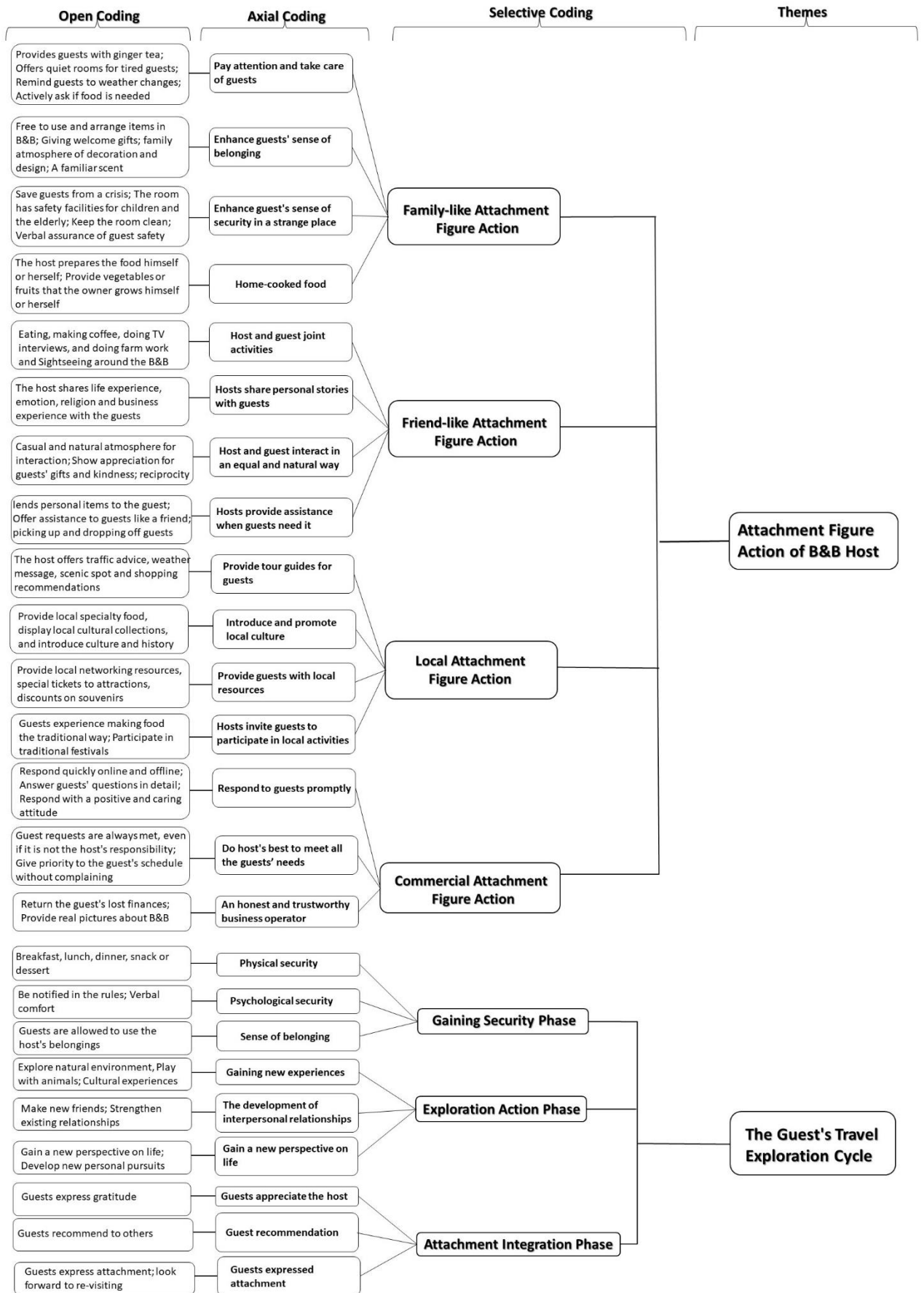


Figure 5. Coding process

Results of stage 3

The attachment figure actions of B&B host

In stage 3, through manual coding, we defined four types of attachment behaviors exhibited by hosts, which can effectively foster guests' attachment security. First, we discovered the "family-like attachment figure action" of host. First of all, we found that paying attention and taking care of guests can bring them a warm feeling of home, particularly attentive to their physical health and comfort. For example:

"When we were leaving, they reminded us that it has been raining in Shanghai recently. As first-time visitors to Shanghai, we were deeply touched and felt at home here!"

Making guests feel a sense of belonging and welcome is also an integral part of making the guest feel at home. When guests feel trusted to use and arrange the facilities or furniture in the homestay, they may feel relaxed and at home. For example, one guest mentioned:

"if you want to cook, you can use the landlord's fully equipped cookware for free. The feeling here is just like home; you can rest when you're tired, confide in each other, and it's a warm and loving haven!"

Interactions that enhance the guest's sense of security also make the guest feel at home. Tourists often feel uneasy in unfamiliar destinations, and if guests receive timely interpersonal support, they will be better able to adapt to the new environment and relax.

'The host is super nice. On the day I arrived, my suitcase broke. Since the place we were staying at was a bit far from Carrefour, he offered to drive me there. Although I ended up not using the suitcase he brought because of my own plans, I am still very grateful to the host who treats me like family'.

Catering, especially breakfast, is not only an important part of the service but also an effective way to create a warm, homely atmosphere. For example, one guest mentioned:

"the hostess personally cooks the meals instead of buying them from outside, giving a feeling of warmth like a family gathering at home for a meal. My daughter ate everything, and even a picky eater's appetite was opened up. She loved it very much..."

Through an immersive reading of the comments, we identified four types of host behaviors that make guests feel at home, including taking care of guests, enhancing guests' sense of belonging, enhancing guests' sense of security, and providing home-

cooked meals. Previous studies have found that tourists often seek accommodations that can serve as a substitute for home (Zhu et al., 2019; Tussyadiah & Zach, 2017; Mura, 2015). Tucker (1994) defines home as a space where individuals feel comfortable. Zhu et al. (2019) further discovered that hosts who pay meticulous attention to detail and offer additional care can create a homely atmosphere for their guests. A sense of belonging often gives guests a “feeling of being at home” (Liu & Mattila, 2017). Home provides a sense of physical security (Després, 1991), which is an essential component of the home experience. Zhu et al. (2019) also found that guests feel at home when they perceive safety in certain places or areas.

Secondly, we found that a “friend-like attachment figure action” of host. One of the primary features contributing to the development of friendship is engaging in special events together. When the time spent together is memorable, guests can recall these moments even after their trip. For example, one guest mentioned:

“The host is friendly and approachable, treating me like a friend. In the mornings and evenings, we wandered around the fields. The owner even personally helped us dig for worms and bait the hooks. Although we only caught one small crayfish, it remains a wonderful memory for me.”

Additionally, communication plays a crucial role in fostering a friend-like interaction. Friendships between hosts and guests can develop through the sharing of knowledge, experiences, and personal stories. For example:

“That evening, the host lit a small stove in the yard. A group of strangers gathered around the stove, sharing their life experiences. It felt just like being with old friends—simply wonderful.”

Thirdly, friend-like interactions between hosts and guests are characterized by equality and reciprocity, creating a relaxed and natural atmosphere. For example:

“They treated me like a friend—thoughtful yet casual.”

Hosts providing assistance to guests can also contribute to the development of host-guest friendships. In particular, hosts are seen as sincere friends when they go beyond their role as operators and privately offer unpaid help to guests. This can deeply move the guests. For example:

“My host lent me a baby stroller and even used their own annual pass to help me get a discount at Disney. I felt very warm and sincere. It felt like being with a friend, and they were very considerate of me.”

We found that friend-like interactions between hosts and guests, although both emphasizing the intimacy of the interpersonal relationship, differ from family-like interactions. While family-like hosts focus more on the care and protection of guests, friend-like hosts emphasize equality and engaging in fun activities together. The study by Xue et al. (2022) also highlights the importance of friend-like interactions, which involve activities requiring significant time and energy investment from both parties. Friendships between hosts and guests are developed by sharing emotions and experiences and creating common memories through these activities (Xue et al., 2022).

Third, we identified the “local attachment figure action” of host. First, we found that hosts can act as experienced travel guides, providing travel knowledge that only local residents can offer. For example, one guest mentioned:

“The young lady is very nice and easy to talk to, with a pleasant voice. She proactively helped us with our luggage and answered all our questions. She even planned the most convenient route for our trip.”

Second, we found that some hosts have a strong sense of mission to promote local culture. They are proud of their local culture and often transform into disseminators of it. Guests are influenced by the host’s enthusiasm, which leaves a deep impression on their accommodation experience and understanding of the local culture. For example:

“She (the host) is also a promoter of Chongming culture, enthusiastically explaining her collection to us.”

In addition, we discovered that hosts also provide financial benefits and practical assistance. They can offer guests special discounts on tickets to other attractions, recommend places to visit, and help with travel planning. For example, one guest mentioned:

“The landlord was warm and attentive. Knowing that we were going to the town to buy souvenirs, they helped us get a discount through their friends.”

Hosts inviting guests to participate in local daily life is another way to build a sense of immersion at the destination. Guests are integrated into the daily life of the local community through shared experiences, such as preparing dinner together. For example:

“The local villagers are friendly, warm, and very simple. The B&B retains its original earthen stove. If you stay for several days, you can cook for yourself with the assistance

of a local granny and experience making 'salted meat and vegetable rice' using the traditional large earthen stove."

We found that hosts can serve as guides to enhance guests' immersive experience of the local culture. Previous research has shown that travelers engage with locals to gain insights into local culture, lifestyle, and knowledge (Su & Wall, 2010). Zeppel (2002) found that learning about local history and interacting with local staff can offer tourists an authentic experience of native culture. Local residents typically have extensive knowledge of their environments and attractions, along with the expertise and capability to address local issues (Tussyadiah & Pesonen, 2016).

The last theme we found is the "commercial attachment figure action" of the host. First of all, in both online and offline communication, timely communication makes guests feel the host's responsibility and reliability. Especially for guests traveling with children, pre-communication can eliminate concerns and provide a sense of control, for example:

"I added the host on WeChat beforehand. He patiently and enthusiastically answered many questions (how to get to and from the station and Disneyland, how to book tickets and plan our visit), which gave us peace of mind as we were traveling with two kids."

Secondly, the host's effort to meet the guests' needs is at the core of ideal service. This not only reflects the host's enthusiastic service attitude towards customers but also demonstrates the host's service capability. For example, a guest mentioned:

"Playing mahjong with my friends, I met another guest who also needed mahjong. The host immediately contacted the automatic mahjong machine delivered for us. It is not easy to have such a service on the second day of the New Year."

Third, the host's responsible, honest and trustworthy characteristics are essential to the development of mutual trust between host and guest. For example, host help customers find lost property. Taking responsibility after a service failure and making up for a guest's loss is also a way to maintain a guest's trust.

When the host acted as a responsible, honest, and hospitable service provider, guests had higher satisfaction with their stay experience, which was the most common interaction pattern observed in the reviews. Unlike hosts who were more like family, friends, or true locals, business-like hosts were found to be less involved in self-disclosure. A large number of positive comments on the service highlighted its meticulous, thoughtful, and comprehensive nature, and these characteristics are consistent with the previously

established dimensions of hotel service. When online and offline interactions are transparent and positive, guests and hosts can foster mutual respect and favorable attitudes towards each other (Luo & Zhang, 2016; Wang et al., 2012).

In the above analysis, we focus primarily on the actions taken by B&B hosts in their interactions with guests. We identify four types of attachment figure actions exhibited by B&B hosts and find that these actions play distinct roles in guests' travel experiences, such as providing protection, support, and stimulating guests' desire to explore unfamiliar places and new experiences. To further investigate the effectiveness of these attachment functions, we shift our attention to the guest experience of staying at the B&B. By analyzing both the experiences of guests and the actions of hosts, we aim to generate a comprehensive model of the interaction.

The three phases of guest exploration

In this section, from the perspective of the guests' experience, we report on the three stages they undergo during their stay at a B&B: the gaining security phase, the exploration action phase, and the attachment integration phase. Hosts interact with guests through protection, assistance, communication, and sharing of knowledge or material resources, thus supporting and enhancing the visitors' exploratory activities and continuously affecting their perceptions and outcomes of the exploration.

We first define the gaining security phase of exploration. We have found that guests are able to explore B&B and destinations only if they feel safe in the environment they live in, and we have found that guests' sense of security is based on three critical aspects. First, we identified physical security. The physical security perception of guests involves the judgment of the B&B's hygiene, the safety of facilities, and the freshness of food, which is the most fundamental aspect of B&B, concerning the protection of tourists' personal well-being. For example:

"After checking in and seeing the room, I felt much more at ease. The room was exceptionally clean and comfortable, exceeding my expectations".

And for guests with kid, this is even more important, for example:

"It's very suitable to bring children here. There are many considerations for children. For example, low washstand and a low shower head are thoughtful touches. The hotel has been meticulously designed. The space also features dry-wet separation and shower isolation, which I really like".

Additionally, psychological security is an important aspect. The protection and assistance from host can make the guest feel trusted and psychologically safe. For example, a young independent traveler recorded:

“I am a 17-year-old girl traveling alone to Disney. Before arriving, I was quite worried about all the possible problems that might occur. After arriving, the receptionist addressed all my concerns, upgraded me to a larger room, and made my stay incredibly comfortable.”

The third theme is the perception of a sense of belonging. When guests feel that the host and other attendants are friendly, trustworthy, and that they themselves are welcome and accepted, this can significantly enhance guests’ sense of belonging. For example:

“Thank you to the host for taking such good care of me. On the first day when we arrived, it was raining heavily outside with strong typhoon winds. When we arrived, the air conditioner in the room had already been turned on for us, which was a thoughtful touch that made us very happy.”

Developing trust toward the B&B, a sense of belonging, and a sense of security is crucial for guests to explore, immerse themselves in new experiences, and face challenges. Guests have the confidence to explore new environments because they know they have a supportive and welcoming place to return to at any time. According to attachment theory, individuals typically develop a sufficient sense of security before they can fully engage in exploration. This security is vital as it reduces anxiety and fear, allowing them to experience new things with confidence. During this phase, we found that family-like attachment figure actions were frequently mentioned as effective in enhancing guests’ sense of security. These actions provide a sense of familiarity and security in an unfamiliar place by offering food, warm and homely rooms, and personal care. High-quality rest helps them feel more confident and in control, and they show more excitement and anticipation. Home provides a sense of physical security (Després, 1991), which is an essential part of the home experience. Additionally, while commercial attachment figure actions are less involved in guest exploration, they still provide reliable support and timely responses, helping guests feel safe and confident during their travel.

After gain enough sense of security, guest engage in exploration action. First, we found that guests desire and enjoy gaining new experiences. Particularly, the experience of returning to nature, which is different from urban life, is found to be novel, emotional healing, and enjoyable for guests. For example:

“After breakfast, the enthusiastic host, Miss Sheng, specially invited us for a tour around the neighborhood and its surroundings. Walking through the bush paths, the surrounding environment was exceptionally peaceful and beautiful. During this crisp

autumn weather, various trees displayed a tapestry of colors, creating beautiful scenes like oil paintings.”

Novel cultural experiences are also new and attractive. The host presents unique local culture within the B&B environment and selectively incorporates personal aesthetics, greatly stimulating guests' curiosity and enhancing the appeal of exploring the new environment. For example:

"Additionally, the owner is a culturally rich Shanghai native and has incorporated elements of Shanghai-style culture, such as vintage European chandeliers, faucets, and some curved wrought iron, which are scattered throughout the homestay, adding a distinct Shanghai flavor it looks like a vortex of time. Walking on it feels like returning to childhood, to the place where dreams began.”

Try to learn new skills and try new activities with the guidance and encouragement of the staff can also bring novelty and fun to guests. For example, one guest mentioned:

“In the afternoon, making drip coffee with the barista at the homestay taught me a lot about coffee, which I love. With the teacher's guidance, I made a cup of Mandheling that I felt was quite good! Other guests played with succulents with the teacher, and everyone had a great time chatting and having afternoon tea together.”

The development of interpersonal relationships is also an important result of the exploration stage. For example:

“Unlike hotels, homestays are full of warmth and human touch. Guests can talk and even lay their heart bare to hosts. The host is a happy woman, and her cheerful laughter fills the air.’

Another example:

“Why am I writing such a detailed review so late? Because the homestay is great, the owner is great, the service is great, and the people are great... I highly recommend having the owner guide you to save a lot of trouble. We walked a very long distance, and the key point is that my 8-year-old daughter kept up with me the whole time. If the plan wasn't good, she would have been impatient long ago! Highly recommended! ... Xiao Yang, we've definitely made a friend in you!”

Third, gaining new insights and a fresh perspective on life is also a precious memory from the exploration stage, for example:

‘In conversation, I felt the owner’s calmness and elegance. This wisdom and temperament likely come from a wealth of experience. The benefits of traveling include not only cleansing the soul but also meeting people you would never encounter in everyday life, seeing different possibilities in life, and gaining a deeper understanding of your own life’s true meaning’.

At this stage, guests are less dependent on the care and protection of hosts and more autonomous and in control of their exploration and travel plans. They are eager for more exploration opportunities and prioritize exploration-related support from attachment figures. Our findings indicate that friend-like and local attachment figure actions are particularly effective during the guests’ exploration phase. A friend-like host provides selfless assistance, accompanies guests during their exploration, and shares experiences and emotions. While offering support, this type of host does not interfere with the guests’ autonomy and independence, thereby enhancing the enjoyment of exploration. Local attachment figures, on the other hand, share unique local knowledge, culture, and contacts that outsiders typically lack. They can also help guests obtain material benefits, such as discounts, further enriching the exploration experience.

Afterwards, the guests enter the next phase, the attachment integration phase of exploration, which guests reflect on their exploration at the destination, review their interactions with the hosts and other tourists, and form their final conclusions about the journey. In their reviews, guests acknowledge and appreciate the host’s kindness, express their desire to reciprocate, reflect on their experiences, and convey their attachment to the destination and the host.

We found that guests appreciate the host’s contributions to their trip. For example:

“perfect homestay, perfect service, perfect holiday... I’m so glad we chose to stay at your homestay, it gave us wonderful memories.” And another guest reviewed, “I didn’t bring makeup remover, and Zhang (host) even had someone deliver it to me. I’m very grateful! Initially, I didn’t have high expectations, but everything turned out beautifully! Thanks to this stay, I felt the original charm of a homestay and the warmth of the host, rather than a cold transaction”.

Another example also shows that:

“I have to say that 80% of the happiness from this trip to Shanghai came from this homestay. For those of us who have dogs, it can be very inconvenient to travel in city like Shanghai with our pets. So, the three-day stay was very pleasan”.

When guests experience high-quality accommodations, they feel confident recommending the B&B to their friends. They see this recommendation as a way to give back to the host.

"I also posted on my WeChat Moments to express my gratitude to the homestay owner and recommended it to my friends. I'm truly thankful to the owner."

Another example shows:

"We are all genuine guests and sincerely hope that such good hosts will continue to thrive. Several of my friends are planning to visit Disneyland this summer, and I have strongly recommended your place. Keep up the good work, boss!"

Additionally, we noticed that many guests expressed attachment and reluctance to leave the B&B and host. And many guests have expressed their desire to visit again. For example:

"This year, staying at Miss Sheng's B&B brought us a wonderful experience. The young girl traveling with us was particularly reluctant to leave and wanted to stay a few more days, so we can only look forward to coming back next year".

Another example:

"The next day, my child's foot was accidentally injured and couldn't go out, so they helped look after him for a while. Since then, my child has completely fallen in love with the housekeeper and her friends. Singing, playing games at the homestay, they had a blast. Parting was hard, and we promised to come back next time ^-^".

When guests finish exploring a destination or B&B, they beginning to integrate their experiences. We found that guests' experiences in B&B led to an attachment to the host and B&B. Guests express gratitude, attachment, and reciprocity and a desire to revisit in their comments. Travelers often consolidate their relationship with a place through repeated visits (Isa et al., 2020). Attachments can develop between individuals and various physical and social settings, including buildings, environments, homes, objects, landscapes, neighborhoods, towns, and cities (Cresswell, 2004). Numerous studies have explored the relationship between place attachment and the intention to revisit (Brown, Smith, & Assaker, 2016; Kaplanidou, Jordan, Funk, & Ridinger, 2012; Prayag & Ryan, 2012; Tsai, 2016).

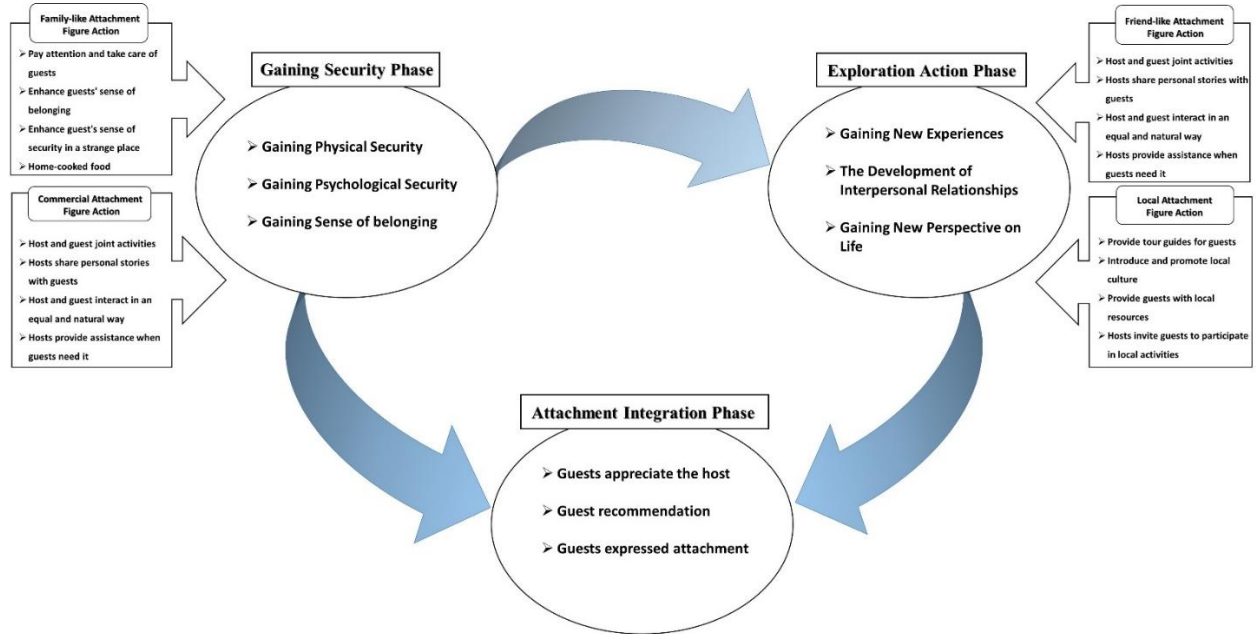


Figure 6. Theoretical model

Discussion

Based on a multi-stage analysis of guests' online reviews, we found that host-guest interaction plays an important role in guests' B&B experience and that the essence of high-quality host-guest interaction is the development of secure attachment relationships. Through detailed manual coding, we report four typical attachment figure actions (family-like attachment figure action; friend-like attachment figure action; local attachment figure action; commercial attachment figure action) that hosts can adopt during a guest's three phase of B&B exploration (gaining security; exploration action; attachment integration). The host interacts effectively with the guest, developing from a stranger into an attachment figure for the guest, facilitating the guest's stay experience, and ultimately fostering the guest's attachment to the B&B. Since host-guest interactions promote a sense of connection and security, and develop a secure attachment relationship (Mikulincer & Shaver, 2012). Finally, we generate a model of the host-guest interaction (see Figure 6).

Firstly, we found that the family-like and commercial attachment figure actions of B&B hosts can promote guests to gain a sense of security. We identified a range of external crises that can interrupt or even end guest exploration, including transportation issues, financial losses, and health concerns. In these cases, the host appears as a haven, solving problems for guests, calming their emotions, picking them up and returning them to their rooms for rest, and taking care of their physical well-being. An accident during a trip can disrupt a series of plans for the rest of the journey and cause the traveler to lose control of

the situation, even compromising their safety. However, we found that guests who were rescued and protected by the host described their difficulties positively and felt that they had a valuable experience. Hosts ensure that guests get plenty of rest, consume enough calories, and are convinced that they have a strong, intelligent person always available to support them. Once guests regain enough security, they return to their focus on the exploratory task.

During the exploration process, the host functions as a secure base. We found that friend-like and local attachment figure actions are more focused on promoting the efficiency and enjoyment of guests' exploration. These two types of attachment figure actions facilitate the guests' perception of having a secure base. During the action phase of exploration, host responding at any time to provide necessary but non-intrusive support, and increasing the enjoyment of exploration through interaction, and help guests feel more capable of exploring confidently and effectively. According to self-determination theory, humans have three basic psychological needs: the need for relatedness, which involves forming close emotional bonds with others; the need for autonomy, which refers to the desire for free will and the ability to independently choose activities without external pressure; and the need for competence, which is the belief in one's ability to control their environment and actions (Van den Broeck et al., 2016; Deci & Ryan, 2000). With secure base support, travelers become self-determined, more actively engaging in destination exploration and forming close relationships with local companions. They describe themselves as nature lovers, pursuing an ideal life, free from the constraints of their daily identities, enjoying autonomy. With the host's support, travelers not only become more engaged in exploration but also develop stronger connections with local companions.

When guests finish exploring a destination or B&B beginning to integrate their experiences. We found, guests who actively participate in exploration feel relaxed and authentic both personally and interpersonally, which contrasts with their everyday lives, which not only prompted them to view the host as an important attachment figure on their travels, but also prompted them to yearn to return to the B&B again. Wang (1999) introduced the concept of authenticity into tourism literature and divided into intra-personal and inter-personal dimensions. The results of this study confirm these two dimensions. In the intra-personal dimension, travel helps tourists recover from the stress of work or daily life by engaging in activities such as breathing fresh air in the countryside or taking adventurous trips that transcend mundane life (Chen, Petrick, and Shahvali, 2016). On the inter-personal authenticity dimension, the study found that people enjoyed spending time with family members during the trip and felt closer to them afterward. The support of the host plays a crucial role in helping guests liberate themselves from forced pretense. One reason people fake emotions and pursue uncomfortable goals is the pressure to meet social standards or please others (Erickson & Ritter, 2001; Sloan, 2007; Vannini, 2006), while according to attachment theory

(Bowlby, 1982), supportive relationships are vital for personal strength and accurate self-perception (Adams, 2006; Shaver et al., 2007).

Theoretical contribution

This study proposes a series of theoretical contributions regarding host-guest interactions. First of all, we found the interaction between consumers and service providers in the B&B hospitality industries is inherently different. In the commercial relationship of hotel industry, the essence of the relationship between service providers and consumers is instrumental and resource exchange (Price and Arnould, 1999), and emotional participation is limited. Our research confirms that B&B hosts can serve as attachment figures for guests and take different actions during destination exploration, including family-like attachment figure action, friend-like attachment figure action, local attachment figure action, and commercial attachment figure actions. A prior study also discovered that hosts assume multiple roles in comparison to the singular role of hotel employees. They co-create more personalized tourism experiences for guests by including them in family gatherings and local activities (Wu, X., Han, X., & Moon, 2023). An investigation uncovered Airbnb hosts usually being a mixture of all three types—capitalists, befrienders, and ethicists—with (Hardy & Dolnicar, 2017, chap. 15). Hosts adopt a range of roles, including those of informal service providers, entertainers, and co-creators of tourists' experiences (Cheng & Zhang, 2019).

Our research confirms that guests experience multiple stages of B&B and destination exploration: the gaining security phase, the exploration action phase, and the attachment integration phase. Prior research indicates that tourists experience varying levels of stress during different stages of their vacation, and this stress is both multi-faceted and dynamic (Zehrer & Crotts, 2012; Kimball & Freysinger, 2003; DeFrank et al., 2000). Zehrer and Crotts (2012) identified these three main categories, and stress can be categorized based on its occurrence: pre-trip stressors, stressors related to the actual travel to the destination, and stressors related to the stay at the destination. However, our study found that, at different stages, guests not only face varying pressures but also encounter diverse opportunities for exploration. B&B hosts play a crucial role by providing a sense of security and acting as both a haven and a safe base. This support helps guests manage stress and enhances their enjoyment. In summary, B&B hosts' varied roles are essential in helping guests navigate and enjoy their journey, adapting to their needs at different stages of exploration. This dynamic support system ensures that guests can better manage stress and fully engage in their vacation experience.

Our findings indicate that B&B hosts can serve as attachment figures for tourists at their destinations. These results confirm that attachment bonds continue to develop in adulthood and attachment figures can also be context-specific, as long as they are strong

and trustworthy and real or potential sources of comfort and support in a particular environment (Bowlby, 1982). Our study found that tourists who are supported by their B&B host as an attachment figure in their exploration behave as self-determined tourists, consistent with previous findings. Previous research has shown that leader support enhances employees' sense of self-determination and improves their competence and willingness to engage in forward-looking change initiatives (Oldham & Cummings, 1996; Parker & Wu, 2014). This study also found that secure attachment also enables people to act in line with their inner self and showing authenticity in behavior and communication. In real life, people may be untrue or dishonest with themselves for many reasons, including the desire to avoid painful truths, such as being blamed for making mistakes, being frustrated, and succumbing to social influences, such as peer pressure, social norms, and the expectations of others (McCabe, Butterfield, & Treviño, 2006; DeGreeff et al., 2009; DePaulo & Kashy, 1998). To achieve authenticity, an individual must first liberate themselves from the constraints of daily routines (Wang, 1999) and then engage in genuine experiences that enable self-fulfillment (Handler, 1986). It enables individuals in a given environment to freely engage in activities that they would normally avoid because of their social role. Supported by secure attachment, travelers present their true selves at the destination. This study expands the explanatory power of the concept of authenticity in the field of tourism research.

Practical contribution

This study outlines a dynamic cycle of guest accommodation and exploration in B&B settings, offering important practical implications for B&B hosts, industry practitioners, and destination managers. The study identifies three phases of interaction between hosts and guests. In the gaining security phase, hosts can foster a sense of security by embodying a family-like or commercial-like image, helping guests establish trust and comfort. This can be achieved through enhance communication, detailed guidance on what to expect during the stay, and assurances regarding health and safety measures. During the action phase of exploration, a friend-like or local-like image can enhance the quality and efficiency of guests' exploration. Hosts can actively engage with guests by providing insider tips on tourist attraction in the area, suggesting less-known attractions, and sharing personal stories that connect guests more deeply with the local culture. In the attachment integration phase after the guest's trip, the host can strengthen the relationship with the guest by giving gifts and increasing communication, so as to attract the guest to visit again.

For destination managers, supporting and encouraging the growth of the local B&B industry through targeted resources and policies can stimulate local tourism and increase visitor engagement with the community. B&B hosts often play a crucial role in this process, acting as informal tour guides, helping guests plan their visits, and offering insights into local attractions and experiences. For example, hosts who adopt a local-like

approach may assist guests with planning their itinerary, offer guidance on local sights, or even provide discounts on tourist attractions, thereby boosting local souvenir sales and enhancing the overall visitor experience. B&B hosts thus serve as vital connectors between guests and the destination, facilitating better consumption experiences for tourists and aiding in the effective promotion and integration of local tourism resources. This not only enhances the attractiveness of the destination but also supports the local economy by promoting sustainable tourism practices. By leveraging these strategies, B&Bs can differentiate themselves in a competitive market, enhance the overall guest experience, and contribute to the sustainable development of local tourism ecosystems.

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Conclusion

Research one focused on the popular phenomenon of tourist selfies, discussing whether these photos can impact viewers' attitudes towards the destinations portrayed in them. Based on social comparison theory and envy studies, the research finds that potential travelers might encounter upward comparison when viewing these photos, leading them to compare their own images with those of the people in the selfies. This comparison can result in body image concerns, with two opposite reactions: benign envy and malicious envy. Such reactions, in turn, influence viewers' attitudes towards the destinations. The research argues that potential travelers concerned with self-presentation are more likely to be influenced by travel selfies. Moreover, whether the destination in the photo can serve as a stage for highlighting body image is a determining factor for viewers to develop positive attitudes towards the destination. The first research was published in 《Journal of Travel & Tourism Marketing》 .

The first study, grounded in social comparison theory, makes several significant theoretical contributions. It confirms that travel motivation is strongly linked to the desire to present an attractive body image. The study also demonstrates that visitors with positive self-presentation intentions engage more in upward social comparisons, aligning with previous research showing that individuals compare themselves to slightly more competent others to facilitate self-evaluation and inspire self-improvement. Additionally, the research identifies that upward body comparisons on social media can trigger both benign and malicious envy, with self-image concerns modulating the type and intensity of these reactions. Benign envy positively influences destination attitudes, as potential travelers believe visiting such places can improve their online image, while malicious envy has a negative impact, leading to negative attitudes towards the destination. These findings are consistent with assimilation effects, where upward social comparisons can be self-enhancing when individuals feel part of a superior group and are compelled to defend it. Overall, this research provides a deeper understanding of the dynamics of social comparison and envy in the context of travel selfies, highlighting the prevalent self-presentation anxiety and hostility towards more attractive presenters on social media.

The study's findings have important managerial implications for the travel and tourism industry. Attractive images in trip photos can significantly stimulate the audience's desire for tourism consumption. Therefore, destination managers should create landscapes conducive to photography and organize travel photography activities on social media to encourage viewers to seek unique shooting locations. For example, Turkey's Ministry of Culture and Tourism has launched a selfie contest with prizes such as a free museum card or a concert ticket to incentivize participation. Highly attractive travel selfies can lead to negative physical perceptions, but when people believe these achievements are attainable, upward social comparison can be inspiring rather than disheartening (Kim & Chung, 2023). Managers can mitigate negative effects by

providing professional photography services, including makeup, photography, and editing, to help regular tourists take attractive selfies. Positive guidance can convert negative self-perceptions into benign envy, fostering more optimistic attitudes towards the destination. Additionally, the transformation of tourism photography has heightened the importance of self-expression and identity formation (Van Dijk, 2008). Marketing managers should understand the social value and identity information of a destination to effectively target specific tourist segments and enhance their engagement and loyalty.

Research two examines the potential roles of travel influencers as attachment figures and how these roles ignite viewers' desire to visit new destinations. This study employed a mixed-method research design to test the hypothesis. In the first stage, a qualitative study revealed the attributes that constitute an 'attachment figure' for followers of travel social media influencers. In the second stage, a quantitative study was conducted, which found that the dimensions of attachment figures promote upward comparison and benign envy, while inhibiting malicious envy among audience members. Overall, the study concluded that if influencers connect with their audience in a way that fosters trust and security, they can significantly enhance the promotional efforts of destinations and hotels. This research has been accepted by *Journal of Travel & Tourism Marketing*.

The second study makes significant theoretical contributions to the understanding of travel SMIs and the dynamics of social comparison and envy. Firstly, it explores the nature of travel SMIs as online attachment figures, revealing that their marketing potential stems from their ability to use charisma to attract audiences with diverse interests and personalities. The study identifies four key dimensions of travel SMIs in this role: sincerity, deservingness, personal attractiveness, and encouragement. These dimensions highlight the multifaceted nature of the relationship between influencers and their followers, providing a nuanced framework for future research.

Secondly, the study contributes to the literature on social comparison and envy by considering travel influencers as attachment figures. It demonstrates that support from an attachment figure can promote prosocial envy, specifically benign envy, and enhance upward comparison. This aligns with findings from Fraley and Shaver (2000), who show that individuals with secure attachment styles exhibit greater resilience and adaptive coping mechanisms when facing challenges compared to those with insecure attachment styles. Consequently, the study finds that support from an attachment figure can inhibit malicious envy among audience members. Individuals with secure attachment styles display higher self-efficacy and better emotional regulation skills. Attachment security fosters a positive self-concept, enabling individuals to accept and integrate their flaws into a coherent and affirmative self-image (Berant & Baumel, 2017). These theoretical insights offer a deeper understanding of how social support and attachment dynamics influence emotional responses and attitudes in the context of travel social media.

This research offers valuable practical implications for professionals in the tourism industry. It encourages the hiring of travel social media influencers (SMIs) for online promotion, as these influencers can effectively showcase the unique features and attractions of a location or hotel through engaging content, vivid imagery, and personal experiences, thereby attracting potential visitors. Zhang & Huang (2022) found that marketers who capitalize on viral tourism marketing opportunities and feature influencers as protagonists can significantly enhance public interest in the destination. For example, Tourism New Zealand (TNZ) partnered with Chinese travel influencers to live-stream a tourism promotion on Weibo, reaching 1.6 million viewers and gaining many followers and potential visitors (Whiddington, 2020).

The positive perceptions of travel SMIs are crucial for destination marketing, especially when an emotional bond is established. Four key dimensions—sincerity, deservingness, personal attractiveness, and encouragement—are essential for selecting suitable influencers. Marketers should prioritize influencers known for authentic storytelling and genuine audience interactions, ensuring they transparently disclose partnerships and share content that reflects their true experiences. Deservingness can be evaluated by the influencers' expertise and knowledge in the travel sector, as demonstrated by their previous content and insights. Marketers should also seek influencers with natural charm and appeal to enhance the effectiveness of their storytelling. Finally, collaboration with influencers who foster encouragement through their narratives can inspire audiences to pursue their travel goals. These dimensions ensure that the content activates upward comparison, leading to benign rather than malicious envy, thereby fostering more positive attitudes towards the destination.

Research three investigates the impact of host-guest interactions at Bed and Breakfast (B&B) establishments, examining how these interactions enhance travel experiences through the lens of attachment theory. The study analyzes online consumer reviews to identify key attributes that enhance guest experiences and to understand effective interaction strategies between hosts and guests. The findings reveal that hosts, initially strangers, often evolve into significant attachment figures for guests. Hosts can function as a "secure base," providing guests with a sense of safety and stability that allows them to explore their surroundings with confidence. Hosts act as "safe havens" by offering emotional support and fostering trust, which helps guests feel secure and valued during their stay. This dynamic not only enriches the enjoyment of the stay but also influences guests' overall reflections and intentions to revisit. The research highlights the importance of these positive host-guest interactions in sustainable travel, demonstrating how effective host engagement can significantly impact guest satisfaction and loyalty by fulfilling the role of both a secure base and a safe haven. The third research is expected to be submitted to the 《International Journal of Contemporary Hospitality Management》.

This study makes several significant theoretical contributions to the understanding of host-guest interactions in the B&B hospitality industry. Firstly, it highlights the

fundamental differences between consumer-service provider interactions in B&Bs and traditional hotels. While hotel interactions are primarily instrumental and focused on resource exchange, B&B hosts can serve as attachment figures, engaging in family-like, friend-like, local, and commercial attachment figures actions to co-create personalized tourism experiences. Secondly, the study reveals the dynamic nature of guests' B&B and destination exploration, categorizing it into three phases: gaining security, exploration action, and attachment integration. Guests face different pressures and opportunities at each stage, with B&B hosts providing security and support to manage stress and enhance enjoyment. Thirdly, the study confirms that attachment bonds can develop in adulthood and be context-specific. Guests who receive support from B&B hosts behave more self-determined and authentically, leading to more meaningful and enjoyable travel experiences. This expands the attachment theory in tourism research, demonstrating the positive impact of secure attachment on tourists' behavior and communication.

This study provides important practical contributions for B&B hosts, industry practitioners, and destination managers by outlining a dynamic cycle of guest accommodation and exploration in B&B settings. It identifies three key phases: gaining security, exploration action, and attachment integration. In the gaining security phase, hosts can foster trust and comfort by adopting a family-like or commercial-like attachment figure actions, enhancing communication, providing detailed guidance, and ensuring health and safety measures. During the exploration action phase, hosts can improve the quality and efficiency of guests' visits by presenting a friend-like or local-like actions, offering insider tips, suggesting lesser-known attractions, and sharing personal stories to deepen guests' connection to the local culture. In the attachment integration phase, hosts can strengthen relationships by sending gifts and increasing follow-up communication, encouraging repeat visits. For destination managers, supporting the B&B industry through targeted resources and policies can enhance local tourism and increase visitor engagement. B&B hosts often act as informal tour guides, helping guests plan their itineraries, providing local insights, and offering discounts on attractions, which boosts local souvenir sales and enriches the visitor experience. By leveraging these strategies, B&Bs can differentiate themselves in a competitive market, improve guest experiences, and contribute to the sustainable development of local tourism ecosystems.

Together, these studies illustrate how attachment theory and social comparison-envy dynamics intersect in the tourism context. They show that both emotional and relational factors play a crucial role in shaping travel experiences and attitudes. Whether through the impact of travel selfies, the role of travel influencers, or the interactions between hosts and guests, understanding these psychological processes can greatly enhance strategies for promoting travel destinations and improving guest experiences.

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